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THE

Charlotte

Medical Journal.

A Monthly Journal of Medicine and Surgery.

Subscription, $2.50 per year.

VOLUME XII.

E. C. Register, M. D.,
J. C. Montgomery, M. D., Editors and Publishers.

CHARLOTTE, N. C.

No. 36 South Tryon Street

1898.

APR 25 1899

Of Importance to Physicians:

We beg to call the attention of Physicians to the fact that the makers of

**Phenacetine-Bayer,
Sulfonal-Bayer, and Trional**

are supplying these products in

Dosed Powders of 10 grains each

as well as in ounce cartons, as formerly. These powders are put up in ounce cartons containing 44 ten grain powders, each powder having the seal of the makers on the cutting line. In many instances it will be found advantageous to prescribe these remedies in these original powders, thereby insuring the genuine character of the products. When you desire these powders dispensed be sure and specify them in your prescriptions.

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**Schieffelin & Co., New York,
Sole Agents for Pharmaceutical Products of Farbenfabriken
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**In the treatment of
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whether acute or chronic,**

TANNIGEN

has proved of
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Tannigen, or acetyl tannin, is an ideal intestinal astringent, which passes unchanged through the stomach and is decomposed gradually in the intestine, exerting its specific action upon the entire intestinal canal. It is odorless, tasteless, agreeable of administration, and perfectly innocuous and unirritating. In acute and chronic diarrhœal troubles, both of children and adults, dysentery, the diarrhœa of phthisis, Tannigen has been successfully employed.

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These two Carbonates are now acknowledged to be the most pleasant, safe and effective remedies in the treatment of tuberculosis. An experience of over five years has established the fact that Creosote Carbonate and Guaiacol Carbonate are free from the noxious by-effects of the plain creosote and guaiacol, and exhibit only the therapeutic properties of these drugs. The neutral Carbonates cause neither irritation nor inflammation of the stomach or intestines, and abnormal fermentation and decomposition processes are stopped. No other guaiacol compound contains so high a percentage of chemically pure crystalline guaiacol as Duotal, namely: over 90%; while Creosotal contains 92% of pure creosote. The Carbonates are the only two intestinal antiseptics whose action extend as far as the ileum; but, as has been shown by thorough investigation, they cannot be found at the commencement of the large intestine when administered in ordinary doses.

Professor Dujardin-Beaumetz, in the Supplement to the Dictionary of Therapeutics, Paris, 1895, states:

> "From numerous observations, published both in France and abroad, it "appears that Carbonate of Guaiacol stimulates the appetite, facilitates "assimilation, invariably produces a considerable increase in weight, and "imparts to the system great resisting power. Its antiseptic action will "arrest the development of any microbes in the intestine and obviate the "generation of gases, which is always unpleasant. Fits of coughing will "decrease, the expectoration will be modified, fever as well as perspiration "at night will gradually disappear, and the patient will thus enjoy refreshing sleep."

Dr. Nied, Physician-in-Chief at St. Elizabeth's Hospital in Vienna, has treated last winter a number of female patients who were suffering from acute bronchitis, complicated in some cases by influenza, with Guaiacol Carbonate in doses of from 7½ grains to 22½ grains, twice daily, with excellent results. (*Allgemeine Wiener Medicinische Zeitung*, June, 1897).

Dr. Eschle in Professor Baumann's physiologico-chemical laboratory in the Medical Department of the University of Freiburg, found that Guaiacol Carbonate is the more thoroughly used up the smaller and more frequent the doses in which it is given. In phthisis, therefore, Eschle recommends the administration of a dose of 4½ to 7½ grains of Guaiacol Carbonate four times daily. (*Zeitschrift für Klinische Medizin*, Volume 29, 3 and 4).

Dr. Jacob, Chief at the University Medical Clinic of Professor Leyden in Berlin, has obtained very satisfactory effects from the use of Creosotal in a number of cases of pronounced phthisis, though comparatively small doses have been employed. Each patient began with 5 drops three times daily, increasing the dose three drops every day, until 25 drops were taken at a dose. At this they were kept for from one to four weeks, when the dose was diminished in a similar ratio, until only 10 drops were taken thrice daily; and then the ascending scale was begun again. (Inaugural Dissertation by Hans Nordt, University of Berlin, February, 1897.)

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Saved at Eleventh Hour.

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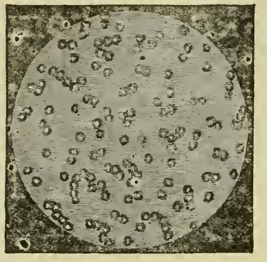

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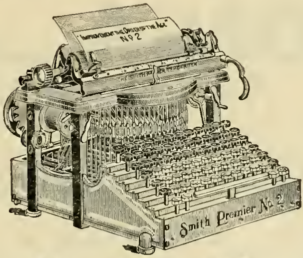

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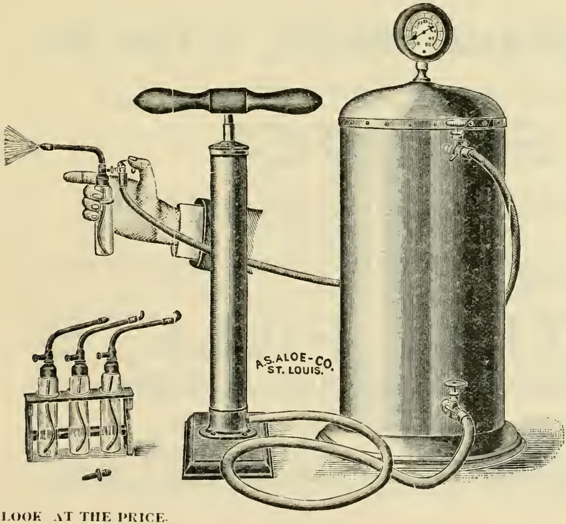
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Does not purge, *per se*, but under its use the Liver and Bowels gradually resume their normal functions.

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FOR ABNORMAL HEART ACTION.

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BUFFALO LITHIA WATER

Disintegrates, Breaks Down and Eliminates Stone of the Kidneys or Bladder, Both Uric Acid and Phosphatic Formations. Its Value in Bright's Disease, Gout, Etc.

ANALYSIS AND REPORT OF DR. A. GABRIEL POUCHET

Professor of Pharmacology and Materia Medica of the Faculty of Medicine of Paris. Director of the Laboratory of the Consulting Committee of Public Hygiene of France.

PARIS, February 12, 1897.

"The collections of **disintegrated** or **broken down** vesical or **renal calculi** which forms the subject of the following analysis and researches, were sent me by Doctor Edward Chambers Laird, resident physician **Buffalo Lithia Springs, Virginia,** U. S. A. **They were discharged by different patients after the use of the mineral water of Buffalo Lithia Spring No. 2 for a variable time.**

"I advise here from the experience of Doctor Laird the use of this mineral water, which has had with him a happy influence on the disintegration of the calculi and their elimination. It is to demonstrate this that he has requested me to make this analysis.

"The collections of the **disintegrated calculi** submitted to my examination were eight in number.

SPECIMEN OF CALCULI "A."—These **disintegrated renal calculi** are very numerous, and present themselves in the forms of grains of *various sizes (from that of the size of a pin to that of a pea)* of reddish yellow color, very hard and nucleus in the center. They are thus composed: Urate of ammonia—for the greater part; free uric acid—small quantity; carbonate of ammonia and magnesia—small quantity.

CALCULUS "B."—This **disintegrated vesical calculus** presents itself in the form of **many fragments** of a granular aspect of a greyish white color. *They are easily broken, and the contexture of the fragments show that they are porous throughout.* Chemical composition: Urate of ammonia—for the greater part; carbonate of ammonia and magnesia—in small quantity.

CALCULUS "C."—**Vesical calculus reduced to crystalline powder**, granular, of a greyish white color, rather friable. Chemical composition: Phosphate of ammonia and magnesia—for the greater part. Carbonate of lime—small quantity. Oxalate of lime—very small quantity.

CALCULUS "D."—**Vesical calculus thoroughly disintegrated, fragments many** and angular, granular aspect, of a rather fragile consistence of a greyish white color. Chemical composition: Bicalcic phosphate—for the greater part (fusible directly to the blow pipe). Oxalate of lime—small quantity. Carbonate of ammonia and magnesia—small quantity. Xanthine—very small quantity.

CALCULUS "E."—**Disintegrated renal calculi, many polyhedral fragments, rounded at the angles,** consistence hard, color yellowish red. These calculi are hard and appear formed of concentric layers. Chemical composition: Uric acid—nearly the whole part. Uric pigment—(acide rosacique.)

(SIGNED) A. GABRIEL POUCHET.

A portion of report omitted for lack of space.

Water in Cases of One Dozen Half-Gallon Bottles, $5.00. F. O. B. Here.

SOLD BY ALL FIRST CLASS DRUGGISTS.

THOS. F. GOODE, Proprietor, - - Buffalo Lithia Springs, Va.

THE IMPROVED "YALE" SURGICAL CHAIR.

HIGHEST AWARD WORLD'S FAIR, OCT. 4TH, 1893.

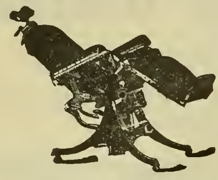

Fig. V.—Semi-Reclining.

1st. Raised by foot and lowered by automatic device.—Fig. I.
2d. Raising and lowering without revolving the upper part of the chair.—Fig VII.
3d. Obtaining height of 39½ inches.—Fig. VII.
4th. As strong in the highest, as when in the lowest position. —Fig. VII.
5th. Raised, lowered, tilted or rotated without disturbing patient.
6th. Heavy steel springs to balance the chair.
7th. Arm Rests not dependent on the back for support.—Fig. VII—always ready for use; pushed back when using stirrups—Fig. XVII—may be placed at and away from side of chair, forming a side table for Sim's position—Fig. XIII.
8th. Quickest and easiest operated and most substantially secured in positions.
9th. The leg and foot rests folded out of the operator's way at any time—Figs. XI, XV and XVII.
10th. Head Rest universal in adjustment, with a range of from 14 inches above seat to 12 inches above back of chair, furnishing a perfect support in Dorsal or Sim's position.—Figs. XIII and XV.
11th. Affording unlimited modifications of positions.
12th. Stability and firmness while being raised and rotated.
13th. Only successful Dorsal position *without moving patient.*
14th. Broad turntable upon which to rotate the chair, which cannot be bent or twisted.
15th. Stands upon its own merits and not upon the reputation of others.

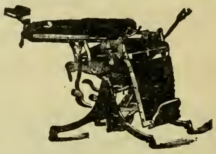

Fig. XVII—Dorsal Position.

Pronounced the *ne plus ultra* by the Surgeon, Gynæcologist, Oculist and Aurist.

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SANMETTO FOR GENITO-URINARY DISEASES.

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SPECIALLY VALUABLE IN
PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—
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DOSE:—One Teaspoonful Four Times a Day. **OD CHEM. CO., NEW YORK.**

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Containing the Essential Elements of the Animal Organization—Potash and Lime;

The Oxidizing Agents—Iron and Manganese

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And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a Syrup with a SLIGHTLY ALKALINE REACTION.

IT DIFFERS IN ITS EFFECTS FROM ALL ANALAGOUS PREPARATIONS; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic and nutritive properties by means of which the energy of the system is recruited.

Its Action is Prompt: it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that exerts a double tonic influence, and produces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE--CAUTION.

The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, **finds that no two of them are identical,** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution,** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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behaves as a stimulant as well as an **Antipyretic** and **Analgesic** thus differing from other Coal-tar products. It has been used in the relief of rheumatism and neuralgic pains, and in the treatment of the sequelæ of alcoholic excess. AMMONOL is also prepared in the form of salicylate, bromide, and lithiate. The presence of Ammonia, in a more or less free state, gives it additional properties as an expectorant, diuretic, and corrective of hyperacidity.—*London Lancet*

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NOTABLE PROPERTIES: As reliable in Dyspepsia as Quinine in Ague. Secures the larger percentage of benefit in Consumption and all Wasting Diseases, by determining the perfect digestion and assimilation of food. When using it, Cod Liver Oil may be taken without repugnance. It renders success possible in treating chronic diseases of women and children, who take it with pleasure for prolonged periods, a factor essential to maintain the good will of the patient. Being a Tissue Constructive, it is the best general utility compound for tonic restorative purposes we have, no mischievous effects resulting from exhibiting it in any possible morbid condition of the system.

DOSE:—For an adult, one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessertspoonful; from two to seven, one teaspoonful; for infants, from five to twenty drops, according to age. Prepared at the Chemical Laboratory of

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Stimulates Digestion and promotes Assimilation.

FORMULAE. Each fluidounce contains:

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Hypophosphite Soda	2	grains.
" Lime,	$1\frac{1}{2}$	"
" Iron,	$1\frac{1}{2}$	"
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The Charlotte Medical Journal.

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Slight Errors of Refraction as a Cause of Discomfort and Disease.

By Gillard S. Tennent, M. D., Asheville, N. C.

The physician, as well as the physiologist, should study the human body as a perfect whole, made up of numerous living units, each having its proper function, and all working together in perfect unison. In running to earth the cause of any departure from this perfect standard, he should not forget that the impairment or abnormality of function of one part impairs the whole, and often shows itself in some remote manner, so intimate is the connection of these units through the two-fold agency of the nervous system and the circulation.

As it is principally through the nervous system that errors of refraction of low degree make themselves known, a brief study of the relationship between it and the perfectly and imperfectly refracting eye will be profitable. The self-evident proposition that a chain is no stronger than its weakest link, is so well adapted to illustrate the resisting power of the nervous system, that we might almost say that it is not as strong as its weakest point. Given a patient with an enlarged prostate, a nasal polypus, an uncorrected astigmatism or some other like focus of irritation, as long as he is subjected to no unusual strain, all may run smoothly, only let the strain be increased beyond the power of endurance of the weak point, or the general vital energy be lowered sufficiently, and the resulting trouble is liable to be out of all proportion to the cause and may assume a most unlooked for and substantial form. If we except lesions of the nervous system proper, the foci of irritation which are the first to influence the nervous system, and which most frequently constitute its weak points, are located, as a rule, either in some organ which is the seat of many or complicated reflex actions, or in some tissue supplied by the cranial nerves.

That the eye is one of the chief lurking places of these foci of irritation, is now a matter of common observation. It will not seem strange to us that this should be so, when we consider that through many generations man has subjected his eyes to the strain of complicated work and artificial illumination, for which nature can provide no adequate compensation, though, study of the subject seems to indicate that such compensation does exist to a certain extent, and that the eye and its functions are not degenerating as many suppose. On the other hand, the nervous system, rendered hyper-sensitive by the habits and necessities of modern civilization, magnifies any irritation which may exist, and, at the same time, responds more readily to it, thus, bringing the amount of strain and the point where endurance ceases, so close together that the slightest change of either may overbalance them in some individuals, while in others, this overbalancing exists as a chronic condition to which the system never accustoms itself.

The only eyes which may not give rise to irritation are emmetropic eyes in which perfect, binocular vision exists. Eyes in which there are perfect balance of the extrinsic muscles and perfect balance between them and the muscles of accommodation. In low degrees of hyperopia, myopia and astigmatism, comparatively perfect vision may be obtained, but at the expense of the muscles and of the nerves and centres which preside over the associated movements. The result of this is an interference with the delicate equilibrium which should exist between the two sets of muscles and an extra strain upon the nervous system. In the strong man it may take abuse of the eyes, over work or a weakening attack of illness to bring this strain to light, or it may go on unperceived until presbyopia, the herald of advancing years, shows its existence, but in the weakly and in the neurotic, its presence is always perceived, and its baneful influence too often follows the slightest overuse of the eyes or the slightest departure from the normal standard of health.

The pertinent question is: Why does this comparatively insignificant disturbance of equilibrium constitute such a source of irritation to the susceptible nervous system? Though it has never been answered altogether satisfactorily, an answer clear enough for practical purposes may be drawn from what follows, without delving into the complexities of the subject:

The call of the centre for perception for a perfect image in the slightly ametropic eye is as great as, and, in many instances, greater than, the call in the highly ametropic eye, the centres for co-ordination obey this call, and, to overcome the conditions present, have to send out impulses of an abnormal nature, and, in turn, the muscles, either of accommodation or of convergence, have to respond to the impulse by exaggerated action.

The above exposition may or may not resemble the true *modus operandi*; there are in it, however, two elements of undoubted truth, viz.. abnormal nervous action, and exaggerated muscular action. In astigmatism, these actions are rendered still more abnormal and complicated by the unequal contraction of the ciliary muscle in its effort to neutralize the corneal defect, the occurrence of which Javal has proved.* The presence of this unequal ciliary contraction is responsible for much of the strain usually present in astigmatism, and is the theory generally accepted to account for latent astigmatism, though recently it has been denied by Hess.† The importance of these two abnormal conditions, their intimate connection with and bearing upon the whole nervous system, will be realized by considering the following facts concerning the normal actions of the nerves, the centres and the muscles involved in the visual act:

1. They are exceedingly complicated.
2. They vary infinitely with the position of the object looked at.
3. They must be regulated with minute precision.
4. They are continuous during the waking hours, almost every voluntary action being most intimately connected with them.

The direct and appreciable results of this strain are, in order of their frequency:

1. Accommodative asthenopia.
2. Muscular asthenopia or insufficiency (heterophoria).
3. Inflammatory conditions of conjunctiva and lids.
4. Concomitant strabismus.

In asthenopia and insufficiency, there are nearly always pain and discomfort, varying in degree, referred to the eye itself, and due to the abnormal action of the muscles. Unfortunately, however, the trouble does not stop here, the neurotic individual or the person with a very susceptible nervous system, is apt to suffer, and frequently does suffer, from a variety of reflex neuroses, all due to the destruction of the harmony which should exist between accommodstion and convergence. Juler states that this is proven by the frequent disappearance of the symptoms upon the development of concomitant squint.‡ It frequently occurs that the oculist has a patient who complains of all the symptoms of asthenopia, the persistent, frontal headache, and attacks of migraine as well as the common and well known ocular phenomena of blurring and running together of letters in reading, pain and lachrymation from extra visual efforts, etc., who shows an hyperopic error as small as I. D., or even less, upon the most careful examination. Hyperopic astigmatism is especially liable to cause asthenopic symptoms, indeed, it seems that the number of cases in which it causes serious discomfort, is greater than that in which high degrees of hyperopia exist.

Slight errors, especially myopic astigmatism and myopia, constitute the prime cause in a large number of cases of muscular insufficiency, though so much is said and written in these days concerning "intrinsic insufficiency." It is in this class, where slight ametropia coexists in causative relation with insufficiency, that we are apt to find the remote and serious symptoms, and it is also in this class, that full correction of the slightest errors achieves its most brilliant results. Frequently there are most persistent headaches, the peculiar pain behind the mastoid processes and spinal pain, while very rarely, cases are reported of digestive troubles, ovarian disorder, epilepsy, acute mania and other dyscrasia quite as remote, arising from muscular insufficieney.

Of all the symptoms of asthenopia and insufficiency, headache is the most distressing, and, unfortunately, the most common. It may be said that all headaches arise from one or more of the following causes Eye strain, nerve exhaustion, blood poisoning, organic disease, tumors or pressure of the brain, or meninges or fever. In some cases eye strain alone may be the exciting cause, but in most instances it exists in connection with nerve exhaustion, or with a circulation loaded with the products of imperfect digestion, assimilation and excretion. It is such an important factor in their etiology, that it has long been the routine practice of the thorough diagnostician to inquire into the condition of the refraction in all cases of persistent headache. Dr. Weir Mitchell was one of the first neurologists to call attention to the importance of this procedure.

In children, the only evidence of ametropia may be oft-recurring attacks of conjunctivitis, or blepharitis marginalis, while in adults, there may be conjunctivitis, more or less chronic, chalazia, or successive crops of styes, all of which symptoms will disappear when the proper correction is worn. These local and inflammatory troubles are reflex in origin and from the same source as the asthenopic symptoms, in these cases the conjunctiva or lid glands being the weak points.

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*Annales d'Oculistique, 1881, II., 14.

†Graefe's Archiv., XLIII., I., 252.

‡Juler Opthal. Sci. and Practice, p. 428.

Discussion of the causes of strabismus is here out of place, but the adherents of both of the principal theories agree that a large number of cases are primarily due to anomalies of refraction, most of them to the higher degrees, but some few to the small errors.

After saying so much about the effects, a few words about the diagnosis and treatment will suffice. The diagnosis is at once the most important and the most difficult feature of slight ametropias, and it is here that the personal skill of the oculist is often measured, as is his judgment in their correction and treatment. As each observer has his own methods and routine of examination, no definite rules can be laid down, but one may rest assured that the best results will be obtained and error in diagnosis practically excluded, by carrying out the following suggestions: With very few exceptions, use atropine or hamatropine in the examination of all patients under thirty years of age, and in many over that age. Make the subjective examination and its results secondary in importance to the objective. Use the opthalmometer of Javal and Schiotz only as an aid, and rely on sciascopy, the method of the present and the method of the future as a sheet anchor, and, finally, never complete the diagnosis at the first examination, always making, at least, a second one immediately after the effects of the mydriatic are worn off.

Treatment is not as simple as it may appear at first thought. Many cases are so far benefited by improvement of the general health, and the observance of a few simple principles in using the eyes, that further treatment is unnecessary. This is often the case when a slight hyperopia has been rendered troublesome by the wearing of minus glasses. The number of young people wearing weak minus glasses, at the same time, having emmetropic or even hyperopic eyes, is startling, and is accounted for by the fact that minus glasses are often accepted by those whose accommodative power is strong, whether myopia be present or not. Another class requires the prescription of the proper correction for some months during the convalescence from some weakening disease, or until the general condition is improved. A large number, especially of astigmatics, require the wearing of part of their correction continuously. The wearing of the full correction is generally called for only where the asthenopic symptoms are severe, or where muscular insufficiency exists.

So various are the conditions met with, that we may almost say that every case is a law unto itself.

In conclusion we may summarize as follows:

1. The trouble resulting from low degrees of ametropia is reflex in character and involves the central nervous system.

2. This trouble is disproportionate to the prime cause, and its severity depends upon the susceptibility of the individual nervous system.

3. Anything which lower the resisting power of the nervous system, or which increases the irritation of the ocular defect, tends to increase it.

4. Eye strain is the beginning of the trouble, which may be asthenopia, accommodative or muscular, or may assume slight inflammatory forms.

5. This strain is a result of interference with the harmony of accommodation and convergence.

6. Its importance is due to the complexity of the visual act and its intimate relation to the whole nervous system.

7. Its results may be far-reaching, and it forms one of the principal factors in the etiology of headache.

8. Exact diagnosis, by a reliable objective examination, is of the utmost importance and should rarely be made without the aid of a mydriatic.

The Analogues of Menstruation.*

By Arthur Johnstone, Cincinnati, O.

"The natural law of which menstruation is a part, began when the first leaf fell from the first tree." This statement I made in a debate on the biology of menstruation, before the New York Academy of Medicine. It is the elaboration of that law to which I now invite your attention. The falling leaves and withering stems, which our suburban members passed on their way to this meeting, give us a great object lesson as to the amount of shedding that nature really accomplishes.

Our deciduous trees, as you all know, produce both epithelial and connective tissue, which can only live for a time, then the tree goes into a state of rest and returns what was a part of itself to nature's great arcanum. Before these leaves, which you have just brushed out of your paths, fell away, the buds for next year's crop were formed and capped over by a winter's coating, which holds them secure and safe from winter storms and ready to burst out with the first supply of spring sap. This is the most obvious form of shedding and the one that is easiest understood, showing that the plant, like everything else in nature, has a period of great activity and a period of rest. In the evergreens the process is similar, the only difference being that the leaf is retained in the winter and does not fall away until spring, when the new leaves are beginning to grow. But if any of you have taken the trouble to look at the evergreens as they now stand, you will find next spring's buds are already formed, and form a little bulb-like prominence on each twig. With their formation the tree goes into rest. But with the return of the sun and the free flowing of the sap next spring, these buds open up, the new leaves are put out, new wood is rapidly formed, and while this entire process of growth is in full swing the old year's leaves fall off. So that every plant, whether it is deciduous or evergreen, has its regular time for shedding and for growth, the only difference between them being that the interval of rest of the evergreen is not so apparent, though it is equally real. You may think this very rudimentary to be brought before such a body and I have only referred to it in order to bring up the most familiar instance of waste and repair. You all know that this is the case with all vegetable life. Even in the tropics the life of a leaf is usually for but one year. The time of shedding is controlled by the dry and the rainy seasons.

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*Read before the Cincinnati Academy of Medicine, Nov. 8, 1897.

But so much for the plant life. I simply wanted to show you that this law of waste and repair goes clear back beyond the animal kingdom and is associated with the very first signs of life.

Among the lowest creatures the shedding is not quite so apparent, for among fish the scales grow in proportion to the creature, as they have to be used as a protective coat; and, of course among the saurians the epithelium is used just as the bark is on the tree, thickened and hardened, because the larger the creature the more thoroughly he needs protection. So that in the scale of the fish, of the turtle, of the crocodile and the alligator, instead of the epithelium being shed, it is retained in the shape of a defensive armor, though so far as the creature itself is concerned, as completely cut off from all active processes as the outer bark of a tree is, and its retention is for almost identically the same purpose. When we come to the land going reptiles, though, which come in contact with the rough surfaces of the earth, there are so many injuries to their outer coats that they would not stand it, and the hardening and thickening would become an impediment to their movements. It has to be repaired each year, so nature kindly relieves the creature of its damaged coat and gives it a new one. The shedding of the snake is the common instance with which you are all familiar. I have already referred to the returning of the sap in the spring and the increased oxidation which is going on in vegetable life incident to the manufacture of new leaves and the growth of new twigs. If we can believe the traditions about the behavior of reptiles, who are just about to shed their old coats, their unusual irritability, their sluggish, shy habits at these times, we would be led to think that in them, too, there is an increased stimulus at the time the new coat is being formed, for the unusual viciousness of the "blind rattlesnake" as he is called, has long since become a household word. This blindness, you know, is due to a greater or less opacity of the old Bowman's membrane as the new one grows underneath it, which cuts off its blood supply and leaves it as a foreign substance spread over the cornea. In a few days, however, the creature loosens his skin, and there is scarcely one of you who has not found these snake skins in his boyhood. The behavior of the creature directly after this shedding shows that there has been a greater or less rejuvenation and in a very short time immense masses of epithelial structures have been formed to give him an entirely new dress from tip to tip.

But the most common instance of this law, with which we are all more or less familiar, is that of the moult of birds. All birds without exception have it. The majority have it only once a year, although some have a second moult just before the breeding season. In these the feathers are shed completely, and new ones take their places. Any of you who happen to possess a pet canary, if you will only watch it during the process of this moult, will be thoroughly satisfied that there must be a great change in his vascular system while this is going on. It stops its singing some time before the feathers begin to fall out; it sits about its cage, feeling more or less drowsy and uncomfortable, the bare parts of its body are of a deeper hue than usual; it breathes more rapidly and there seems to be a general feeling of lassitude and discomfort. Soon the feathers begin to fall out, the new ones begin to appear, and in the proper time he comes out with bright, fresh plumage, and not until that time does he resume his wonted mental status. In some studies I have made of this subject, contained in two papers, one before the Chicago Gynecological Society and the other before the New York Academy of Medicine, I have shown that the little fellow forms immense masses of protoplasm, from which the new feather is grown in a comparatively short time, and that in order to accomplish this there is a great enlargement of the capillaries and an extension of the general blood system away up into the cores of the new and rapidly growing feathers, so the blood pressure has to be far greater and the stroke of the heart has to be increased to supply this largely increased blood area. After the old feather has fallen off and the new one completely grown, these capillaries rapidly shrink down, and in the turkey, in which I made my first studies, I am sure that in the large feathers, where I found from one to three capillaries in each feather, that there was a shortening of from three-quarters to an inch and a half in each feather. The pulp of these feathers amounts to almost that much granulation tissue and its nourishment alone must call for greatly increased activity on the part of the nutritive organs, so that it is no wonder that the moult is always regarded as a precarious time for birds of all description, as their oxidation must be very different from what it is in their ordinary state. Those birds that have a secondary moult in the spring, undoubtedly have it in connection with sexual selection, for many of them get a nuptial dress at the second moult, which just precedes the pairing time. One of the funniest freaks I have ever heard of is that of the crested auk, which grows a curious hook on its bill during this secondary moult, which he only wears during the nesting season and sheds when it is over, thus showing that this secondary process is only a part of sexual selection.

But the special points that I want you to remember are, that so far as we have traced these great rapid sheddings of large masses of material, associated with it are undoubtedly increased blood-pressure and chemical activity. The largest scale on which nature presents this, though, is that of the shedding of the deer tribe, where not only the whole coat of hair is shed and replaced, but the horns themselves, showing that nature does not stop with epithelial structures alone but that she also applies the same laws to even the bones. The amount of osseous structure that the largest bull moose at our Zoo shed last spring, would make a very respectable skeleton for any man in this room. It does not seem very surprising to think of a bone like that dropping off, but the wonderful thing of it is to think that inside of a very few months the periosteum will grow out from his skull and take the fantastic shapes necessary to not only replace the horn he then shed but to give him a new set that is larger and have one more prong. This added to the replacing of his whole winter coat, shows you that he must have manufactured a hundred pounds or two of new tissue in this short time. This, of course, involved a great increased activity of all the his vital processes. I wish very much some one would take the trouble to trace what this increased activity amounts to as estimated by the excretion of urea and uric acid in some of these creatures during this shedding time.

The other instances of shedding are too many and too numerous for me to further elaborate them, and the only reason I have spoken of so many is to let you see that, in order to make such rapid changes, nature is bound to increase the vital activity, and that this vital activity is shown not only by an increased blood pressure but also by an increased oxidation.

So far I have only referred to external sheddings, sheddidgs that every schoolboy is taught more or less about, but things that our profession seems to have lost sight of and that until recently have never been connected with menstruation. So far, I have spoken only of the external surface, but you all know as well as I do that there is as much shedding going on from the alimentary canal and from all the mucous surfaces everywhere as there is from the external coat. The wearing out and sweeping away of the epithelium of the intestine has been written on by many authors, and also the silent desquamation from the skin we are all very familiar with. All that any of us have to do to get a positive demonstration of it is to go travelling for a week away from a bath-tub and then examine the settlings from the first soap bath, when you will see that we are very closely akin to these creatures that we have been discussing. Sheddings from the secretory organs are familiar to you all, for it is impossible to pick up any physiology that does not tell of the wholesale destruction of epithelium in the manufacture of all classes of secretions. The shedding of the genito-urinary tract, though, is a subject that only within the last decades has received much attention.

Time would fail me to speak of anything more than the uterus. In horizontal animals of all descriptions, the muscular wall of the uterus is a totally different structure from that of the erect animal. In all four-footed animals it is a soft, fluffy structure, which looks more like an intestine than it does like the gristly structure of the erect animal. Its submucous coat in every one, without exception, is rich in lymphatics, and in those which have the multiform placenta, eleven years ago, I described the cotyledons "as looking like lily pads lying upon a lymphatic swamp." But even in the cat (where the diffuse placenta is a very rudimentary affair) the lymphatics are very prominent; and in the dog they are equally rich. But in the monkey and in all the ape tribe, and the human being, who are the only erect animals that spend much time in the erect position, the uterus is a very tough, gristly structure, as you all know, in which the endometrium is bound firmly to the muscular wall without any intervening coat of lymphatics, and their absence is what explains to me the necessity for menstruation. In all the four-footed animals the shedding is done through the lymphatics. The most interesting study of this that I ever made was the way that nature removes the maternal placenta from the nursing dog. You know in the rudimentary after-birth of these creatures, the fœtal and maternal structures in the placenta separate and only the shaggy chorion is passed off, leaving the decidual part of the placenta in situ. After the puppies are several weeks old you will still find this old decidua undergoing a fatty degeneration and being removed by the lymphatic route. It is one of the most interesting demonstrations I ever saw and one that is easy enough for anybody to repeat. The protoplasm of the placental cells undergoes fatty degeneration and is broken up into larger of smaller pieces and swept away through the lymphatic stream and can be found in all stages of their progress, working their way back through the muscular wall into the large lymphatic radicles, which lead out to the general lymph stream. In some specimens I had, when studying this subject in 1887, in the preparation of a paper for the British Gynecological Society, the demonstration was just as clear as though these lymphatics had been injected with fatty corpuscles, for nature has done the work for you and all you have to do is just to make the section and look at it. In the cow and sheep there is very little difference, and I am thoroughly satisfied that in all the lower animals the shedding is done in the same way, for I have examined not only the nursing dog but also the one that had been locked up until she had passed the rut, and found a very similar state of affairs. In the erect animal, though, there are no such lymphatics and the only way that nature can get rid of this material, which has served its purpose is to turn the blood-stream into it and wash it out through the vagina. In this way the erect animal gets rid of the over-ripe material in a very few days, whereas the horizontal animal takes a much longer time, so that menstruation for all horizontal animals is represented by weeks and not by days.

Thus gentlemen, I have shown you that there can be no vital activity without waste, and that repair must go hand in hand with it; that where processes must be accomplished quickly, like the shedding of the evergreen leaf and the growth of the new leaf, that proportionate increased vital activity must be brought to bear in order to accomplish it. The menstrual wave, about which you have heard me talk so much and so often, is nothing but a part of nature's great law of waste and repair; and the shedding of leaves, the stripping off the snake skin, the moult, and the repair of the protective coat and weapon of defense, are all analogues of menstruation. Jacobi, Stephenson and the others who have done so much good work on the menstrual wave, have only at last tied back this hitherto badly understood function to nature's great law of waste and repair, and the fact that connective tissue is shed as well as epithelium, is nothing new, for you find the most typical connective tissue structure in the horns of our great moose I have just spoken of.

But the one point which I wish you to take home with you and think over carefully is, that associated with these rapid repairs is always an increased vital activity in which the oxidation wave is very much enhanced, in which the excretion wave must also be increased; and that the practical point of all these studies is, to work out what this increased chemical activity may accomplish. From time to time during my residence among you I have read papers which have borne on the mischief which this wave does when it goes awry but with especial reference to the mechanical pressure caused by it. With that thoroughly understood, many of our heretofore inexplicable riddles have been solved. Vicarious menstruation is easily understood.

Hemorrhages into other organs, such as the retina and the like, are also made plain. But the one point on which I am now more interested than any other is the chemistry of this wave. Lately I have had many interesing cases showing that when this wave goes awry we may have all kinds of disturbances due to the uric acid group. The only typical case of gout that I have seen for six months was a case from away down on the Mississippi that walked into my office the other day with a clearly gouty finger, which she tells me always comes about the time of her menstruation and is perfectly well and comfortable during the three weeks interval.

Many cases of renal trouble I have seen

aggravated very much at these times, and in the light of Dr. Rachford's papers on the subject of the xanthine bodies, I am sure that the menstrual wave plays a very large role in the production of these compounds. One strange case occurred in a lady who had never had rheumatism in her life until it appeared simultaneously with a lot of injuries received at the birth of her fourth child. It persisted for two years, so much so that when I went to do the operation I had to caution the nurses about handling the knee while she was under ether. When I did the work I thought nothing especially about the rheumatism and only operated to relieve the tears which she had sustained. But to my surprise, within a month after the operation she was not only well of all her gynecological symptoms but the knee, after two years persistence, was also well, and there has not been any sign of rheumatism since, although it has been eighteen months since the work was done. Many cases like this are causing me to believe that one of the routes through which our future progress is to be accomplished is in the more careful and thorough study of the chemical side of this wave. And to my gynecological brethren I must say, that if we would only remember that we are physicians first and would pay closer attention to our cases as physicians, we would soon reach a much higher plane.

In the limit assigned this paper I cannot go much further into the discussion of the various histological conditions which we find in the endometrium. But before closing there is one point, which has seemed to be overloked, which to me is perfectly plain, that is why the protoplasm of the human endometrium is always kept in a much higher state of nutrition than that of any other creature. It is on account of the omnipresence of the rut. I have never studied the monkey's endometrium, but as described by Heap and Bland Sutton, it is a very close approximation to the condition of the little girl, but from their descriptions of it, is undoubtedly not so rich in protoplasm as that of the child-bearing woman. Many of you know that my belief is that only four or five ova ripen in the year, and that this ripening may take place at any time and consequently impregnation in the human being, as we all know, is also at any time possible. The monkey only has two rutting seasons in the year, and many of them have only one, though they menstruate four or five times in the year. So that menstruation and the rut cannot be identical even in them. In the human being, though it is simply out of the question, as menstruation only occurs thirteen times in the year and the rut may be said to be present more or less for three hundred days in the year. Why this is necessary you can all easily understand. It is the very keystone of our whole political life, for after we have said all that is possible about it, it is the one great link that binds society together and makes us different from the beasts that surround us.

Time would fail me to go into the pathology of menstruation. Nothing short of a course of lectures could do this subject justice in the light of the discoveries of the last ten years. I hope, though, that some of you practitioners will be stimulated to the study of your obscure cases in reference not only to the pressure systems but also to the chemical side of the menstrual wave, and that from time to time on this floor we shall hear the reports of the many cases that I know are now passing through your hands.

Microbes.

By J. A. Reagan, M. D., Weaverville, N. C.

Over fifty years ago when I was a student, we had but few instruments, and what we had were inferior to those of the present day. Our quadrant which we used in the study of astronomy, would, perhaps, be laughed at now, but it answered our purpose then. Our microscope was also not up to the present, yet it enabled us to see microbes in the water, and other liquids, as well as in the air. Hence we would watch a ray of light passing through a dark room to see with our eyes, the thousands of microbes floating in its passage.

When barrels of rain water had stood some days, we watched to see how these unseen little living microbes would grow, until they became what we boys called *wiggletails*. Now my honest opinion is that these microscopical animalcula found in the water, air, and in vegetables (living creatures) and elsewhere, were put there by an Alwise God for some purpose, that we may not understand, but are for the good of man. They have evidently existed from the time it was said "Let there be light." A great many write and speak as if it were a new creation, or if some change had taken place in the phenomena of nature. Now as to different kinds, or the classification of them, science, and diligent study has enabled men to do this with accuracy. My theory may be different from many of the investigators, nevertheless every man is entitled to his opinion, if his does not injure any person. These microbes being in the air and water, as well as elsewhere, of course they enter the system when we breathe the air, or drink the water, but if they are healthy they do us no harm, but good, but if they be affected with any disease, and our system is not able to throw it off we will contract the disease with which the microbes may be affected. Even healthy microbes inhaled or drank by a person suffering of typhoid fever or any contagious disease would cause the microbes that entered the system to partake of that disease—hence the necessity of being careful of the excrescence of the body to prevent contagion. From the different classifications of these microbes, physicians are enabled, with certainty, to diagnose typhoid fever, diphtheria, scarlet fever, and other diseases, where the particular class of microbes have been properly classed. Microbes in the air, and excrescence of the person affected with any contagious disease, will communicate it to others, and in this way diseases, as yellow fever, small pox, cholera, &c., become epidemic—the air and the water become filled with diseased microbes. Now as I said God placed these microbes in the air, water, and vegetables, as shown by expressing the juice, and placing it under the microscope. I remember, after looking at cider through a microscope, and seeing the kind of microbes it contained I could not drink it. Why may not this theory explain every thing that is necessary in regard to all the different kinds of microbes that have been discovered, in the different diseases affecting the human race?

If this theory is correct the microbes in the air and water in malarial sections will readily explain how malarial diseases spread and cover sections where malaria is found. The present laudable work done by scientific investigators in classifying the different microbes, and giving them names, which readily show, when found, to what disease they belong, is a work to be commended by all thinking physicians. The different diseases, of course, change the healthy microbes to unhealthy, and these diseased microbes entering a healthy man, in the air he breathes, or the water he drinks, will produce the disease with which they are affected, and change the healthy air surrounding the patient to an unhealthy state. Hence the danger of keeping drinking water in the room where there is a contagious disease, as healthy microbes may become unhealthy, and thus impregnate the air and water with the disease.

It is also advisable to have some disinfectant in the room of the sick for the same reason, that the microbes entering may not become diseased, or if preferred, to use the common expression, to keep the air pure. Every thing created has a use, and it requires wisdom and science combined in many cases to find what use many things are.

When I was at the Medical College many years ago, as a student, one question that bothered the professors was the use of the spleen—another the use of the apendix. So we may be a long time in finding out why living creatures, we call microbes, were made, and all their properties. St. Paul asks "Where is the wise? Where is the scribe? Where is the disputer of this world? Hath not God made foolish the wisdom of this world?" Perhaps these questions are as appropriate now as in Paul's day, but we think we are growing wiser in every generation. If so when will we understand the whole truth in regard to microbes?

A Cursory Visit to the Hospitals of Paris and a Near View of Some of Her Doctors in 1867.

By T. Chalmers Peebles, L. R. C. P. and L. R. C. S. I., Lutherville, Md.

Having made my headquarters at Hotel des Etrangers, Boulevard St. Michel, I was in the Latin Quarter and quite near the Ecole de Medicine, where M. DePaul was lecturing on gynecology. He was the most eloquent of the professors and attracted to his lecture room not only the medical students but as many others as could find admission. I frequently went round his wards with him in LaCharité Hôpital and was surprised to see his dexterity in milking the breasts of the recently confined women, after which he frequently would order a bottle of orange water, I suppose as a kind of "placebo."

At the same hospital I examined one of M. Nélaton's patients who had a fatty tumor. He was in a sitting posture leaning forwards with a huge mass attached to his back, shoulder and left arm. The sight reminded me of the picture of Atlas carrying the world on his back. A few days afterwards the man died and M. Nélaton lectured on his case. I was present and saw two men carry in on a large waiter this mass of quivering adipose, which weighed fifty-two kilograms or more than one hundred and four pounds avoirdupois. I suppose, of course, this case has been published; it certainly was the largest fatty tumor I had ever seen.

At the Hotel Dieu Hôpital I saw many of Dr. Maisonneure's operations. At this period he was treating a number of cases of cancer of the breast in the following way: He had V shaped pieces of caustic, composed principally of chloride of zinc, about three inches long and tapering to a point; then after making incisions round the circumference of the breast he pressed these wedges under the gland and allowed them to remain there until the whole gland sloughed off. Sometimes the ribs were laid bare as I saw in three cases; the wounds were very slow to heal. I did not follow up these cases long enough to learn the final results, or whether the cancer returned in the surrounding structures.

M. Maisonneure was also treating some cases of suppurating wounds of the extremities by suction. Stumps, after amputation, were enclosed with a rubber cap or cylinder, which was connected by a rubber tube to a pump, and as fast as the pus formed it was sucked into a glass jar. The students used to call Maisonneure the "Butcher," for at times he was very rough. On one occasion I saw him take hold of a young woman's fore-arm and shake the wrist joint and hand violently until the anchyloses cracked and gave way, the patient screaming all the time. At another time he applied Chassaignac's Ecrasene to a hemorrhoidal tumor and proceeded without an anæsthetic; in the meantime the patient was suffering torture while the surgeon only cursed his restlessness. I think in these two instances he justly earned his title. In the same hospital, under M. Gueneau DeMussey, there were several cases of small-pox scattered in the ward alongside of acute cases of pneumonia, etc. The theory was that a patient having an acute fever was proof against taking another one, at the same time. A prominent New York lady who was staying at my hotel with her son, a student of medicine, asked the landlady to request me not to go near these small pox cases for fear I might bring it to her son at the table. But the landlady refused to do so.

Now let us go over to Hôpital St. Louis, and see M. Hardy. His specialty is skin diseases and the hospital is in the center of a very poor part of the city. Twice a week crowds of poor patients come to his extern. clinic to be treated, perhaps as many as two hundred present themselves in one day. The Doctor and his assistants make short work of them. Just as fast as a case came before him he would call out his diagnosis and the treatment, which was noted down and the patient hurried away to make room for the next; but when an unusually interesting case appeared there was a pause and a few words said about it. Itch and syphilis were the most common diseases on the occasions when I was present. I will now close this article by giving the treatment of itch at St. Louis Hôpital.

The treatment employed by M. Hardy consists, first in friction, for half an hour, of the whole body, except the head, by means of black soap which is continued by the patient himself during an hour, while in a tepid bath. When he leaves the bath he is submitted to a rapid and general friction with the following ointment: Lard 64, Sulphur 20, Subcarbonate of Potassium and water, of each 8 parts. The patient then dresses himself, without wiping off the ointment, for the contact of this is necessary for the destruction of any remaining acari, and of any that might remain in the garments. Of 37,429 persons so treated in ten years, only 535 required a second application.

Superstitions.

By F. R. Millard, M. D., San Diego, California.

"But the days when mothers do not consult the phases of the moon to know when to wean their offspring, or when they are willing to allow him to see his face in a mirror before he is a year old have, unfortunately not yet come." (Editorial in the October number of this Journal.) It is often said of these and similar superstitions that they are unworthy of a moment's consideration by any enlightened mind.

On the other hand, all those who have given much attention to such matters assert that all beliefs and customs which have widely extended through time and space, had, at their origin, a good and sufficient cause for being. Often the cause has ceased to exist while the custom remains.

It is generally impossible to accurately fix the where? when? and why? an old custom originated. But it is not difficult to frame a hypothesis that shall answer all three of these questions in regard to the belief that it would be fatal for a young child to see his face in a mirror. There is little doubt that it had its origin in a country at considerable distance from the sea coast and considerably elevated above sea level, while bright sunshine was the prevailing atmospheric condition, and when metallic mirrors, only, were known, and among a people whose custom it was to destroy deformed infants at birth, and congenitally defective ones as soon as the defect became positively known. Given these conditions let us suppose that soon after the child was old enough to fix his gaze on glittering objects its mother hung a mirror before him so that the sun's rays fell on the mirror, leaving him there day after day it would be surprising if he did not become blind, and so seeing his face in a mirror would indirectly be fatal to him. It is not difficult to answer where and when the custom of consulting the phases of the moon to learn when to wean the baby had its origin, but to give a probable answer to the why, is not easy—that is an answer that will be generally accepted as probable.

Quinine in Malaria.

By R. D. Mason. M. D., Mo. Valley, Iowa,
Lecturer on Rectal Disease in Creighton
Medical College, Omaha, Nebraska.

It is with a feeling somewhat of the nature of sadness that I have read the articles that have recently appeared in the Journal condemning the use of quinine in treating malarial fevers. After having used it for eleven years and never having known it to fail I have come to regard it as a remedy to be relied on. In fact it has been considered by me as about the only drug that I use that could be called a specific. Of course it must be used intelligently, and when I speak of it in the nature of a specific in malaria I mean "*malaria.*" It is so often given for all kinds of fevers of supposed malarial origin that an occasional failure must be expected, for no physician can tell in every case whether malaria exists or not, especially in children. In cases that are known to be malarial I have never seen a case that would not yield promptly to quinine.

I have never hesitated to give it in moderate doses at regular intervals without regard to the chill or fever, but I give the maximum dose about two hours before the expected chill. I wish to report the following cases which illustrate my method of using quinine.

Case I.—Mr. T. came into my office and told me that he was having a hard chill every other day followed by very high fever and that on each alternate day he felt pretty well. This had been going on for five weeks and during all of this time he was being treated by a homeopathic physician with absolutely negative results. He had lost flesh and was pale and greatly emaciated. I gave him a good cleaning out with calomel and salts and two grains of quinine every two hours, to be increased to six grs. two hours before the expected chill. The expected chill failed to put in an appearance and he had no more. Quinine in gradually decreasing doses and an acid tonic completed the cure.

Case II.—Mr. F., a large, robust, full-blooded man had chilled every day for twenty-eight days. When I first saw him he was just emerging from his twenty-eighth chill. His teeth were still chattering, but his face was greatly flushed and the thermometer showed, even then, a temperature of 105 degrees. I gave him a brisk purgative and five grains of quinine every four hours, to be increased to fifteen two hours before the expected chill. The chill from which he was just emerging was the last one he ever had. Like the first case gradually diminishing doses of quinine and an acid tonic completed the cure.

Of course if the patient is in a malarious district his chills may return, for he would be a wonderful man who could cure a person of any disease with the assurance that he would remain cured during the balance of his life.

I agree with the advocates of acetanalid that it it is a good remedy for many febrile diseases of childhood, but it seems to me its value in such cases as I have described above would be entirely useless.

In my practice the cases of malaria among children, as compared to adults has been a very small proportion of the total number, and as it is a verv unusual thing for a child to have a well defined chill, I confess my inability in many cases to arrive at a diagnosis between malaria and many other diseases that cause an elevation of temperature. As is well known causes of minor importance will often throw a child into a high fever and a few doses of acetanalid, or even nothing but the unaided efforts of nature would suffice for a cure.

The Necessity for a Searching Inquiry into the History of Winter Cough, their Relation to Emphysema, and Bronchitis and Suggestive Treatment.

By I. H. Warner, M. D., Brooklyn, N. Y.

Under the common expression of Winter Cough I include all those ailments which have the one conspicuous symptom of either being a cough limited to the winter season or appearing in a more aggravated form during that season of the year. Although appearing as an every-day ailment in the practice of medicine, and hence mostly to the physician as a case devoid of excitement, these cases painfully absorb the interest and attention of the patient. This ailment does not confine itself to one class of humanity, but brings suffering to all classes, and hence demands especial consideration, The history of winter coughs is of the greatest importance. Many are the cases where through the perseverant efforts of the physician to get the history of the case he has been misled by erroneous and conflicting statements by the patients, this being due to the shortness of time given the patients to think over the past prior to committing themselves to give an account of the history of the case. The general questioning should refer to short breath, the taking of colds, coughs, past illnesses, occupation, habits, dwelling and family history, The majority of cases of winter cough may be arranged in five clinical groups.

1. Those where there are physical signs of emphysema, and not of bronchitis, and where there is no history of previous bronchitis.

2. Same as No. 1 excepting where there is a history of previous bronchitis.

3. Where there is physical signs of bronchitis, and not of emphysema.

4. Where there are physical signs of both.

5. Cases where there are no physical signs of either.

This will lead to the following questions:

Is the bronchitis produced by emphysema?

Is the emphysema produced by bronchitis?

Is the winter cough produced by either or both?

In order to administer preventive, curative or alleviative treatment these questions must be seriously considered.

What are the numerous causes of cough? Is it an irritation of the pneumogastric nerve, an irritation of the superior laryngeal nerve, or an irritation of the membrane of the trachea and bronchi? Cough is produced by an irritation of the glosso epiglottic plica and the ary epiglottic plica, by an irritation of the parenchyma and alveolae of the lungs, by an irritation of the mucous membrane of the trachea and bronchi, by an irritation of the pleura costalis, and irritation of the mucous membrane of the pharynx, an irritation of the pneumogastric nerve. I recently observed a case which had been for three years past treated as an ordinary cough.

A. R., age 34, stone mason, male, had been troubled with shortness of breath for some four years. Three years ago a persistent cough began, unaccompanied by any other illness. Previous health was good. The cough began with copious expectorations, and continued all winter, disappearing during the summer. During the winter months, after taking fresh colds, the cough became severe and the expectorations copious. From year to year the breathing became shorter and patient was losing flesh. There was no consumption or asthma in the family. In a reclining position the cough and breathing improved. The heart and chest sound normal, excepting some transmitted harshness in the bronchi; apices very resonant as compared with lower lobes posteriorly, which are rather deficient in resonance. Laryux and tracheal sounds very harsh, and expiratory sounds high pitched on forced expiration. The mucous membrane of pharynx is somewhat timid, and the follicles prominent. The patient feels all his trouble in the windpipe. The history of this case led me to the opinion that the emphysema was a secondary affection. Evidently the pulmonary mucous membrane had become irritated and thickened by inhalation of dust while following his daily work, and this was followed by bronchitis and further thickening of membrane as evidenced by prolonged wheezing expiration. As far as could be learned the patient prior to consulting a physician, at some local clinic, had taken various cough remedies recommended by friends, but was later placed by the clinic physician on expectorants and cod liver oil, which treatment was faithfully followed for about two years, with no marked improvement. Three months ago the appetite began to fail, and the patient noticed a decrease in weight, a recurrence of severe coughing and profuse expectoration. The patient was placed on tablespoonful doses of Wamdole's Tasteless Preparation of the Extract of Cod Liver Oil four times daily and improvement was at once noted, and at last examination is in apparent good health, breathing easy and no cough. I have had occasion to note in various clinics and hospitals the good results obtained from the use of this preparation in all cases of winter cough, and a clinical trial will and does prove the efficacy of this preparation.

A New Operation for Radical Cure of Inguinal Hernia.

Dr. George Ryerson Fowler (Annals of Surgery) recommends a new operation for the radical cure of inguinal hernia, consisting essentially in the transplantation of the cord into the properitoneal region.

This seems to be a retrograde step from Bassini's operation, since the cord comes out of the abdomen over the pubes directly instead of, as in Bassini's operation, by a long oblique channel analogous to that of the normal canal.

1- A curved skin incision which furnishes easy access to all the parts involved in inguinal hernia.

2. Splitting the anterior wall of the inguinal canal from the external to the internal ring.

3. Isolation of the cord and sac together from the surrounding parts, after which these are separated from each other and cleared well up to the internal ring.

4. Double ligature of the deep epigastric artery, with sufficient space between the ligatures to permit of incision.

5. Cutting away of the neck of the sac and incision of the posterior wall of the inguinal canal and Hesselbach's triangle.

6. The cord is transplaced into the peritoneal cavity from the site of the internal ring to a point below the level of the pubic bone.

7. Broad approximation and suturing of the peritoneum and transversolis fascia in front of the cord for the space mentioned.

8. Obliteration of the internal ring and inguinal canal by accurate suturing, and strengthening of Hesselbach's triangle and the new point of emergence of the cord by outward displacement of the pubic attachment of the corresponding rectus muscle.

Early Diagnosis of Puerperal Fever.

The National Medical Review discusses this subject editorially in its January edition:

"A correct and early diagnosis of puerperal fever is of great importanee, as valuable time is otherwise lost before instituting proper local treatment. A safe rule is to consider all cases of fever occurring soon after childbirth as septic in nature and treat them as such until the diagnosis is confirmed or disproved. Careful local treatment will do no harm if the diagnosis be in error, while prompt local measures may save an otherwise hopeless case. This is more particularly true of the insidious and more serious type in which local symptoms may be absent and the lochia presents no disagreeable odor. Delay means the penetration of germs beyond our reach, and the fight is then between the patient and the invading host."

These sentences teach a principle of great value and wide application. It is always wise to regard any fever that develops in the puerperal woman within a reasonable time after delivery as septic in nature. However atypical the fever, however obscure the other symptoms, however probable the existence of malarial or typhoid, the most likely cause and the most dangerous cause is sepsis, and this should never be forgotten. The theory as to the nature of the fever, the diagnosis upon which our treatment is based, should be founded upon our fears. Apprehension and dread are often our best advisers; they lead us before and during labor to exercise the most minute precautions to obviate the danger of infection; after it, they prepare us in ample time to meet the worst.

But it is not only in the puerperal state that apprehension is a wise councilor. In all affections of whatsoever nature that are frankly grave from the beginning we know that active steps are immediately necessary if we wish to preserve health or save life. But as long as diagnosis remains in doubt, all cases of illness should be regarded as serious and be treated accordingly. It is always best to consider a doubtful case a bad case. It is neglected disease that soon becomes unconquerable disease; and apprehension, which always leads us to anticipate the worst and prepare for it, is like the forethought of the great strategist von Moltke, who, because he was prepared to meet a greater emergency than actually materialized, overthrew an empire and altered the map of Europe in thirty days.

Treatment of After-Effects of Ether.

Morrison, in the Boston Med. and Surg. Journal, holds that oxygen is extremely valuable in overcoming the after-effects of ether in surgical operations. He thinks that it overcomes the nausea and the general depression at once, and cites some cases to prove this contention. He admits that some cases are more benefited from its use than others. In the most favourable cases the results are astonishing. The nausea is relieved or prevented, consciousness is quickly recovered, the breath is entirely deprived of the odour of ether in a short time, and the feeling of malaise is absent. Some few cases are not benefited or are positively harmed by its use. The best method of administering the oxygen for etherisation is by the use of a soft rubber catheter introduced into the nares until the eye of the catheter is opposite the opening in the trachea. In the Jefferson Hospital he states this method has been largely employed, and has given great satisfaction. Landau of Berlin has used this plan extensively. He maintains that it prevents headache and nausea, that it abolishes in a moment or two the dusky hue of the face, that it strengthens the pulse, and causes a rapid return to consciousness.

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THE
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BLOOD-LETTING; PAST AND PRESENT.

A search through the works of our highest authorities both of this country and of others, reveals the fact, that while they concede in common with the world at large that bleeding was altogether too freely and indiscriminately carried out in the past, in the present day it is not practised at all under many conditions in which it would be highly serviceable. The introduction and extensive use of antipyretics and vascular depressants within the last ten years, proves that although bleeding has fallen into disuse the same results are now taught by other means; seeing the unduly depressing effect of the coal-tar derivatives of this class of remedies in particular and of all to some degree, a strong argument is furnished in favor of the restoration of blood-letting to its former position as being safer, more rational and more satisfactory than any of these drugs. It is instructive to note that mercury fell under the ban of professional disapproval at the same time and for the same reason as blood-letting, i. e., abuse. Mercury has been restored to its proper therapeutic position as an agent, useful when used with circumspection, but very dangerous otherwise, the recollection of the evils formerly wrought by its abuse acting as a danger signal to the present generation of practitioners. Blood-letting, on the other hand, has not recovered from the oblivion into which it was cast, notwithstanding much has been written in its favor by eminent physicians on both sides of the Atlantic.

Dr. Austin Flint, while admitting its former abuse, states that at the present time it is not sufficiently appreciated.

The late Dr. Milner Fethergill writes: "Bleeding is now almost obsolete, *chiefly in consequence of its abuse.* The error was in excessive abstraction of blood or in the repeating of it to meet the after rise in temperature, instead of resorting to antipyretic remedies. Where its use was followed by the administration of salines and the old fever mixtures, its results were far from undesirable."

Other English physicians, who have recently written in its favor, are Drs. Ogle, Page, Smith, Broadbent and Wilks. The latter writes, "as regards bleeding, there cannot be a doubt, that in former times, its use was often attended with strikingly good results."

When you find the venous system gorged in primary affections of the lungs, or in the secondary affections as in heart disease, or from paralytic conditions as in apoplexy, you cannot be wrong in bleeding; you relieve the venous system as well as the heart and allow the circulating apparatus to right itself. The objection sometimes made that the patient is too weak, is futile, since owing to the small amount of blood which reaches the left ventricle to be propelled onwards, the pulse is naturally small. I could continue giving quotations *ad infinitum* from recognized authorities in favor of bleeding, why then it may be asked has it remained in desuetude? I cannot refrain from expressing my conviction that a desire to avoid the responsibility of employing a remedy which the public consider out of date; a lack of moral courage in fact, may account for our not bleeding in suitable cases, for vascular sedatives do not adequately meet the conditions mentioned in the last quotation. I can answer for myself in this regard: The laity consider the administration of mercurials and bleeding as the medical relics of an unenlightened age; before bleeding, the physician likes to feel that he has the full confidence of the patient and his friends, in the event of a fatal issue.

CAN SUNSTROKE OCCUR THROUGH THE MEDIUM OF THE EYES?

The eye considered from an anatomical and physiological standpoint is as to its posterior surface an expansion of the optic nerve, which is itself a prolongation, separated by only a very short interval from the brain proper, of the brain. Only transparent media, known as humors, intervene between the sun's rays and this brain expansion. So the eye-ball to all appearance presents the most vulnerable point of attack to the sun's rays, not so much the direct rays from which it is protected by the lids which in bright sunlight are almost automatically half closed, as by the reflection from ground destitute of herbage, especially such reflecting surfaces as that of ordinary pavements, and also of the walls of buildings in towns. The eye is not so well protected from attack from the reflected rays from below as from the direct rays coming from above; it lacks the shade afforded by the projecting superciliary ridges and the long upper lids. As contrasted with this unprotected entrance to the brain, a veritable heel of Achilles in its vulnerability, compare the skull, hair and hat protected remainder of the brain; then say if it does not commend itself to reason that the insolation or sunstroke characterized by syncope, not heat apoplexy which may occur in a heated laundry or kitchen, is more likely to be affected through this direct channel than through either the trebly protected vertex or base of the brain. Our own sensations go a long way to confirm this view. Who has not felt the relief when driving or walking in the hot sun in passing from a limestone or even sandy or gravelled road on to green herbage? and it is in the eyes and brain proper, the cerebrum not cerebellum that the relief is chiefly felt. The dazed, oppressed feeling passes off and we are indifferent to the effect of the direct rays of the sun.

Observation of the habits of persons exposed to the sun in Southern California also tends to show that the eyes are the channels through which insolation occurs. While some whose occupation exposes them to the sun are stupidly indifferent as to their head gear, often wearing felt hats instead of straw, it is quite usual for them to wear blue, green, or smoked spectacles, and more would do so but that they find they interfere with their work. While actual sunstroke is rare in Southern California, the condition nearly approaching it, heat prostration it is called, does occur; it is noticeable that those cases of which directly or indirectly I have had cognizance have occurred in the harvest field where the workers are exposed to the reflection from the bright nearly white straw, also to those employed on the roads, railroads, quarries or any occupation which exposes to reflection from dry earth or stone, perhaps less is heard of it in cities here owing to the prevalence of awnings and street sprinkling. Per contra I have never heard of a case occurring in the green beet fields, although the atmospheric conditions more nearly approach those of the Eastern States than of Southern California generally, and, therefore, one would suppose more likely to occur.

THE SAFEST PRACTITIONER.

Which are the safest practitioners of medicine, the old with all their clinical experience, or the young with the latest theories with very little clinical experience? It is true the young will rush in where the old would fear to tread. It is true that the young, just out of college, have more faith in the efficacy of drugs than the old. It is true, also, that the young think the old are antiquated and behind the times. I regret to say that the young in many instances think themselves superior in the way of medical lore than the old with all their clinical bed-side experience and reading.

Of course, this flattering satisfaction in their own minds is their capital in stock. The old have tried every drug and means in the way of treatment and held to those which gave the most satisfaction. It is true the old have borne the brunt and responsibilities of the profession and handed it down unsullied to the young in its present progressed state. The old we should honor for this alone. Many of the old have been in the medical field in endemics and epidemics of cholera, yellow fever and small pox, they have stood by and administered to the sufferings on the field of battle when it tried men's souls, and they have treated diseases peculiar to every climate in our common country. Shall we then say that they are antiquated and behind the times? No a thousand times no. The old's life-time clinical experience at the bed-side of the sick and afflicted is a thousand times more valuable to the practitioner of medicine than the young's college and book lore. It must not be forgotten too that the old have been students of medicine their life-time, not only experimental students, but students of books and journals. We may say truthfully that the more experience a physician has had, the more capable he will be to practice successfully his profession. Of this the young will be we hope fully convinced when the silver gray is beginning to bedeck their heads, the deep wrinkles of professional responsibilities begin to furrow their faces and when their strait forms will become a little more crooked.

OLD TRADITIONS.

Although we live in an age of enlightenment, surrounded by a high degree of civilization, the mass of the people are not yet out of the woods of barbarism, when their ideas of medicine are examined. The lay public still retain many crude and absurd ideas in regard to disease and its cure that are beyond the pale of even common sense. Strange to say, many of these "old woman" traditions find credence among people quite intelligent in other matters than medicine. The usual statement is, that "all the doctors failed to cure," when (as one old lady told me in a conversation about typhoid fever) she gave them catnip tea and they quickly recovered. Another offered a remedy for epistaxis, guaranteed to stop the hemorrhage "when doctors and everything else failed." This was that three strands of silk thread should be tied about the patient's neck. How such an operation acts as a stiptic is unexplained, "but it never fails."

The writer well remembers, in the early days of his practice, attending a multipara during a confinement, when an attempt was being made to deliver the placenta the mother, who had formerly had only a midwife, said to him, "why doctor I always hold salt in my left hand and blow in a bottle to get that." In a case of acute rheumatic fever the always present officious neighbor was in for having no doctors. "They didn't know nuthin. John should get a piece of sulphur and keep it in his pocket." This was a sure cure. Every one knows of the bag of asafœtida about the neck, and the string of amber beads to keep the child from having croup.

Prognosis is frequently determined by all kinds of signs and tokens, some of them almost miraculous. Among the fishermen they always know when death will occur, for at the turn of the tide the patient will die "and the soul go out with the sea." Instances of this kind might be drawn out *ad infinitum*, for they occur in the practice of every physician, and often afford much amusement, Yet they demonstrate the existence among us to-day of the same unthinking barbarism in matters medical, that made King Charles so popular as a toucher of "kings evil," and the vender of pills of cobweb, cows-dung and mummy dust, such an important personage in his community. Hahnemann was wise enough in his day and generation to appreciate this superstitious weakness of human nature and to establish his school of Homœopathy upon it. Imagine such palatable contemplations as his tinct. cimex (bed-bugs), tinct. blatta americana (cock-roach) and definite dosages of "luna" (moonlight), while he had a globule for every sorrow of the mind, as well as for physical ailments.

Medicine to the masses is not appreciated as a science. It is an unfathomable mystery. Whatever becomes a fad is efficacious. The more unexplainable the better. If surrounded by mystery, still better. Barefooted Father Kneipp on the grass, or a long haired healer from the West can at any time draw a larger clientele than any exponent of rational therapeutics. Whether due to ignorance, superstition or barbaric tradition, it is the weakness of mankind who love the sensational, and are willing to be gulled thereby.

IS THE INSPECTION OF DAIRY CATTLE PRACTICABLE AND NECESSARY FOR THE PREVENTION OF TUBERCULOSIS?

It has been proven beyond any doubt whatever that in milk we have one great source of infection to this disease. We have as yet no compulsory inspection of herds in the United States. Careful inspections however have been made in some States and resulted in the finding of tubercular animals in dairy herds.

The question now arises, can milk from an infected animal be safely used for food? The prevalence of mesenteric and intestinal tuberculosis in children, suggests that the food supply may be the source of infection. It has been demonstrated that the disease may be transmitted to calves fed with milk from tuberculous cows. It has also been shown that butter made from such milk would prove infective. If this be true, and there is no doubt but what it is, the drinking of cow's milk and the feeding of same to children must be dangerous where no inspection of the herd has been made. In tuberculosis we have a most universal scourge, and in tuberculous cows we have one great source of infection to this disease; it would then seem wise and prudent to carefully inspect all dairy cattle; and in doing this avoid every important source of infection and it would also greatly decrease the number of cases. Laws should be passed in each State requiring the strict inspection of all cattle and the destruction of those found to be tuberculous. The inspection of the cattle should be placed in the hands of the several veterinary surgeons of the different States—he to have a deputy in each county and in this way it could be very easily accomplished and with very little inconvenience: or a commission could be established for this inspection; but the action of this commission would prove too slow and might fall into the hands of professional politicians and little attention be paid to the real question at issue. The question would now arise as to who would pay the inspectors, and for the cattle that had been found to be tuberculous, and by the tuberculin test condemned and destroyed. As the inspection would be for the people's benefit and safety a tax sufficient to cover the expenses of inspectors, and a reasonable amount for the cattle destroyed, should be imposed in each State, and I believe the people would readily agree, after they knew of their danger, to being taxed for this, for the protection of their children and themselves from this terrible increasing disease.

MEDICAL EXPERT TESTIMONY.

In the last few years a great deal has been written regarding the introduction of medical expert testimony in our courts. This has been so nearly universal that the transactions of almost every State Medical Society contain more or less of papers and discussions relating to this subject. A great many suggestions have been made, but thus far none of them seem to find favor in both the medical and legal professions. The importance of some different method of bringing expert testimony before the court and jury seems to be a well settled fact.

With the present system and the present manner of calling on the professions for testimony, the medical witness has no business in court as a medical expert, for there is no one in court competent to receive or explain medical expert opinions. This must be a self-evident truth, for in order to understand and comprehend the opinions of any of the professions, whether it be the medical, the legal, or the clerical, the court or the jury must be able to analyze and estimate the value of all forms of professional testimony.

In the Journal of the American Medical Association, April, 1897, Robert Mather, general attorney for the Chicago, Rock Island and Pacific Railway, says:

"Medical expert testimony has no logical place in the common law theory of trial by jury; and the admission of it, indeed, violates one of the cardinal principles on which the jury system is founded." * * * * "Facts, not opinions, are wanted, consequently the court is confined to the dry domain of the law, and the witness to the bare region of facts." * * * "Into the bright realm of speculation upon the fact, in which are conceived and brought forth those marvelous children of chance, known as jury verdicts, neither the court nor the witness may enter." * * *

"To this general rule, the expert witness is an anomalous exception. Indeed, it is a misnomer even to call him a witness." * * * "He may have. and as a rule, has no knowledge of the facts out of which the controversy arose. He is called to tell, not what he knows, but what he thinks; not to relate facts, but to rehearse opinions."

A single quotation like the above is quite sufficient to show what our legal friends think of the expert medical witness in court. Why should it not be so, for under our present jury system of trial, in which professional men are excluded, there can be no appreciation of professional testimony. The court can and will instruct the jury upon all points and questions of law and of fact, but virtually says to the jury, on questions of medicine, there is a mass of opinions which may or may not be relevant to the case on trial. It is for you to decide what is true and what is false, what is important and what is unimportant, to be considered in making up your verdict. It is left entirely with you. I am uneducated in medicine and therefore can give you no help. Retire to your room and carefully weigh the matter, and decide which expert has expressed the most reliable opinion.

Is there much uncertainty as to the course of reasoning that jury will take? Is it not almost certain they will, on reaching their room, decide that if the court cannot give them any light regarding such testimony it will be absurd for them to expect to enlighten the judge? As a necessity, there is only one thing for this jury to do, viz.: exclude all medical expert testimony, and do the best they can on what seems to be facts.

This may be absurd, for not unfrequently the medical testimony is absolutely necessary in order to explain many points that are logical in medicine, or surgery, but otherwise cannot be made plain, nor show the case in its true light.

It may not be very reassuring to the profession to realize that, after having spent considerable time in the consideration of an important case, to find that all their work has been set aside, because there was no one to whom it could be referred who was competent to judge of its merits or its accuracy. In order that our work may become a part of the established routine in a court of justice, there must be some one who is as able as the counsel, and as impartial as the court, who can and will unfold to the jury an explanation of what is worthy of their consideration, as is now done by the bench, when it informs the jury that the plaintiff has no standing in court, by reason of not having established a liability or consideration which the defendant is bound to respect. And until then, the less medical expert testimony we have in our courts the less reason will there be for members of the legal fraternity to hold up the profession to ridicule and opprobrium.

It is a well known fact that lawyers do take advantage of this action of juries to subject the profession to ridicule, well knowing that there is no one to explain to the jury the importance the professional testimony may be to them in forming their opinion, and reaching a verdict. Yet criticisms nor such restrictions will not prevent honest and honorable work between lawyers and doctors. Faithful and impartial medical and surgical examinations, honestly reported, giving facts as they exist, and the unbiased opinions of authorities, which shall be free from garbled statements that are *ex parte* in their character, will always be sought for by counsel, on which to base settlements or prepare a cause for trial, or law terms of court.

Such work must be entirely unbiased, and present a true statement of the case, rather than an expert idea of what may or may not be set up as a theory for the plaintiff or the defendant.

Let us confront conditions, not theories; facts, rather than fancies, and if a case does not present any objective symptoms, let us be able to define to what extent subjective phenomena may be entitled to confidence.

In this way we may be of some service to the court, the counsel, and the jury.

THE AFTER TREATMENT OF ABDOMINAL OPERATIONS.

The recovery of a patient often depends much upon the care after the operation. The patient should be carefully placed in a warm bed, to avoid any disturbances such as vomiting, etc.

Hot water bottles are very necessary in most cases, and care should be taken that they do not come in contact with the patient's skin, so as to cause a blister, for a burn at this time proves very annoying to the patient, as well as to the attending physician.

After the patient has returned to consciousness, if she complains of severe pain, morphia may be given. Vomiting is very often a serious complication, and is best relieved by keeping the stomach empty for 12 to 24 hours. If the patient complains of being thirsty, however, she may be given small amounts of hot water, at intervals of 10 to 20 minutes. Where vomiting persists for two or three days, and is accompanied by distension of the abdomen, it is usually an unfavorable symptom. If there is shock stimulants should be given, such as strychnæ, brandy and water, or even warm milk in small amounts.

At the end of 24 to 36 hours after the operation, small amounts of warm milk, beef tea or barley water may be given at regular intervals, and at the end of the second day the bowels should be moved by an injection. Small doses of Cascara Aromatic may be given to regulate them thereafter. They will usually act of their own accord, however, after the first week. At the end of that time the patient can begin to take solid food safely.

The temperature and pulse of the patient should be carefully watched from time to time and a record kept of same, there need be no great fear, however, if the antiseptic precautions have been thorough and complete, as they should be in all operations.

It is usually safe to remove the sutures at the end of 7 to 10 days, and it is considered best to let two or three remain a day or so longer, providing they are not causing any irritation.

The performing of abdominal operations is serious, but under thorough antiseptic treatment the patients as a rule recover.

MEDICAL STATISTICS.

Medicine is pre-eminently an experimental science. One that is constantly appealing to observation and experiment for the validity of its doctrines. It is, therefore, peculiarly a statistical science, since it is the numerical preponderance of empirical facts that determines the acceptance of ideas taught as medical doctrine. Yet in the medical curriculum no attention is paid to instruction in statistics, nor is any evidence demanded of the candidate for matriculation of prior instruction in that branch of study. Indeed, it is perhaps true, that the generality of the medical profession are inclined to mistrust statistics as much as people in general, and with them to exclaim that "you can prove anything by statistics." Obviously a sufficient reply to this statement would be the counter one "that nothing can be proved without statistics." How, without statistics, would one set about to demonstrate the superior efficacy of a particular plan of treatment of, say, diphtheria, or to show that farming was more or less remunerative than some other occupation?

However in all general beliefs there is usually some element of truth, and it is not necessary to look far for the explanation of this general inclination to disparage statistics and statistical conclusions. Not only the secular but even the scientific journals furnish constant examples of the use and misuse of statistics, and afford frequent illustrations of the same facts being relied upon to establish diametrically opposite propositions.

It would take us too far afield to enter into the general subject of statistics, nor is it necessary for our present purpose, which is only to call attention to the importance of the subject to medicine. The progressive introduction and adoption of improvements in methods of differentiation, all tending to greater accuracy and precision in diagnosis, have modified *pari passu* the value of medical statistics for the purposes of comparative therapeutics, especially. In many diseases diagnostic modifications have followed so rapidly one upon another and have been so radical in their natures that it is not possible in many instances to make direct statistical comparisons between therapeutic measures in vogue very many years apart.

The failure to appreciate both the fact and the effects of such changes has lead to many of the therapeutic logomachies of the medical profession, in many of which plans of treatment have been voluminously exploited and combated often with more show of acrimony than of erudition. It is not too much to assert, that were medical statistics scientifically recorded and reported the trained medical statistician would be enabled to furnish us trustworthy approximations of the real merits of our therapeutic efforts, much to the material benefit of both patient and physician.

A fair knowledge of statistics and statistical methods must convince any one not logically obtuse that it is equally as rational to blame the *a*, *b*, *c's* and *x*, *y*, *z's* of algebra for the school boy's mistakes as to blame statistics for the erroneous or false conclusions of those that carelessly or ignorantly use them; and that statistics, if they be adequate, prove invariably one thing, and that is the *truth* in the matter as near as *truth* is obtainable.

Inasmuch as scientific advancement in medicine depends largely upon the logical use of the facts furnished by observation and experience, it would seem that the medical colleges should either give instruction themselves or demand of the candidate for matriculation a degree of familiarity with the elementary principles of statistics at least equivalent to that exacted with reference to his knowledge of Latin, which in after medical life appears to be useful to him mainly in such forms as *tr. op. camph.*, etc,, which often give rise to the cruel suggestion that the abreviator would find some difficulty in writing in full the words curtailed.

EXISTENCE OF ORGANISMS IN WATER.

All water except that which comes from great depth (as the artesian well) will be found to contain more or less organisms.

Rain in falling carries with it the germs that may be contained in the air and in this way infects the soil; so surface water must necessarily be infected from the ground through which it soaks.

River water is infected through all manner of sources, shallow wells unfortunately are often polluted by sewage, etc., thus making the water dangerous. If the water does not contain sufficient organic matter, to act as a food for the fungi, there will be no multiplication, and the organisms will die sooner or later, but may live for many weeks. It is true, I think, that the danger of infection by water has been greatly exaggerated; yet it is best to avoid the use of all suspicious water until it has been thoroughly boiled.

There seems to be abundant proof that in many instances water is infected by sewage, and it will not require a great stretch of ones imagination to believe that the water infected by sewage may contain the undisinfected discharges from patients suffering from one of the infectious diseases. There are many sources of contamination of water that could be mentioned, and there are many ways by which these dangers can be avoided; it is then important that we should have full knowledge of the dangers as they exist and use all possible means in our power to avoid them.

SANITATION AMONG THE FARMERS.

In past ages disease has been regarded as an evil spirit and the time and energy of the medical man has been spent in combating it as such. As the medical man has advanced in knowledge he has taken a different standpoint in regard to disease and today much of his time is spent in preventing the occurrence of disease.

Our cities are divided into sanitary districts, and sanitary laws made and rigidly enforced. Here the masses are educated to this by the newspapers and the work of the medical man is more like that of a machine. But how about the country? What is the condition of the farmer and what is being done for him? Among the laboring classes he is a large and important unit. From a sanitary standpoint his natural advantages are superior to those of any other class and with all these natural advantages we will find him living in a more unsanitary condition than the others. Sink drains, cess pools, privy vaults, pig stys, and barn yards are located around his home where most convenient and with no regard whatever paid to their relation to the water supply.

Valuable fertilizers, which should be placed upon the soil are allowed, in many instances, to leak into the water supply where they soon produce disease. Here is an opening where the country doctor can do a great deal of good if he will. Let him join the local Farmers' Institute and occasionally give them a short talk on sanitary science. Many farmers believe that germs are very dangerous things and always harmful, while the physician knows that this is only exceptionally the case; that most germs are beneficial in their action and that all the higher forms of life are dependent upon them. In fact if it were not for the germs nothing would decay and therefore nothing would grow. This fact could be explained also, how germs by living on dead organic material help to form nitrates or plant food in the soil, how fertilizers are beneficial to soil through germ action and life, how drinking water full of germs is harmless as long as they find no organic material to break up into poisonous compounds, or none of those compounds leak into the drinking water.

Many very intelligent people do not understand how the germs produce disease, having an idea that it is the germ itself, instead of its particular product (ptomain). It is very hard work to convince some people that soil will gradually become saturated with filth so that water running through it becomes contaminated instead of purified. The physician understands these things thoroughly, and can, if he will, present a very interesting paper to the Farmers' Institute, and one which will be of great practical benefit to the farmer. The present generation may thus get an inkling of the truth while the next one is being educated up to it in our public schools.

The country doctor is usually a popular man and is either asked to attend or speak at the farmers' meetings and no one can handle this subject as well as he for he speaks from experience and actual knowledge. In the city this work is done by the machine of local government and the newspaper. In the country, if it be done at all, it must be by the voluntary work of the country doctor, for awhile at least. And in no way can he be of greater usefulness to the community in which he lives and the country at large.

CHLOROFORM IN OBSTETRICS.

Chloroform, we believe, is the most precious boon bestowed by Providence upon suffering humanity. And we believe its greatest triumphs are achieved in Obstetrics. Yet its use is fraught with great danger. No doubt under the great principle which pervades nature "There is no great good without a corresponding great evil." It seems the medical profession, as a rule, have not thoroughly qualified themselves in regard to the proper administration of this agent, and also fail to understand who are the proper subjects for its use. Most of them seem to believe, with the laity, that any disease of the heart or lungs prohibits its use. Such, however, is not the fact. The best authorities now claim that persons not strong, having weak lungs, even those slightly consumptive, are among the best subjects for chloroform. All these under the careful rules which I inculcate may take chloroform with comparative safety. Even organic disease of the heart does not prohibit its use. But a fatty heart does. The muscular structure of a fatty heart is supposed to be somewhat displaced by fat and therefore weak. Hence every user of chloroform should carefully study the symptoms of fatty degeneration of the heart. If there is a previous history of drunkenness, of tendency to faintings, of dyspnœa from congestion of the lungs, atheroma of the arteries, feebleness of the heart, intermission of pulse, a certain yellowness of countenance, a congested state of the capillaries of the cheek. All these symptoms point to fatty degeneration of the heart, and the physician who administers chloroform to such a patient, does it at his peril. Delirium tremens positively forbids its use. Congestion of the lungs also makes it very dangerous. But the most dangerous subject is the strong, healthy, individual, with powerful heart, lungs and muscles. In such a case chloroform overwhelms a powerful nature. And the shock to the system is great, and if anæsthesia is too rapidly induced fatal results are likely to follow. Yet such persons may be very safely chloroformed, by administerering slowly, and taking much time to establish tolerance. By tolerance I mean that acclimation or naturalization of the system to the new atmosphere of chloroform, which qualifies them to endure it. As Sansom, an able English writer, truly explains: Place a bird under a bell glass to breathe the air over and over again in which it would live three hours. If at the expiration of two hours a fresh bird be introduced into that poisoned atmosphere it will die almost instantly, while the acclimated bird would continue to live another hour. This is tolerance; so with chloroform, sudden induction is liable to be fatal, but if tolerance is established its administration is comparatively safe.

A popular error in regard to chloroform is that its use may be followed by deleterious after results; that after chloroform is taken a person may be diseased or debilitated for life. Such, however, is not the case. If the effects of chloroform are not immediately fatal no bad results follow. Like the effects of whisky, though a terrible debauch may follow, yet, after it is over, the system resumes its normal condition, and the individual has the same integrity of constitution as before. Another popular error is that its use leads to complications, floodings, rupture of the perineum and other accidents. An extended experience convince me that these fears are entirely groundless. Hence I believe we should disabuse our minds of all such fallacies. It is obvious therefore that the skillful practitioner should be fully informed in regard to the effects and even remote consequences of this mighty agent. It is all the more necessary that this subject should be fully investigated as we are all well aware that great fatality has resulted from its injudicious use. We find the effect of chloroform on the system proceeds by stages. In the first stage the function of the cerebrum is abolished and we have temporary loss of intellect. In the second stage the function of the cerebellum is affected, and loses its power of coordination. In the second stage the function of the spinal cord is affected and we lose the power of sensation and motion, sensation always first, and if pushed to the fourth stage, the medulla oblongata is affected and loses its power of continuing the functions of life, the jaw drops and the patient dies. Hence you will perceive why, great as are its benefits, I never touch this deadly agent without fear. But the subject of chloroform is very extensive; I can only give here the merest outline. But the great beauty and safety of chloroform in obstetrics is the smallness of the dose required to accomplish the desired object. It is seldom necessary to induce anything more than a partial abolition of sensation. I believe it is never necessary to approach the danger line. It should be given according to strict rules; and those I adopt were given by the able Dr. Ransbotham—an empty stomach, a cool skin, a subdued circulation and recumbent posture. But the greatest objection is that it deadens the pains, and retards labor. So far from this being true. I believe it generally has the opposite effect. As an example, I was called to attend a Mrs. B., having attended her twice before, and knowing her predilection for chloroform, I had it ready for immediate use. The moment I entered the room she exclaimed, "give me chloroform; when I have that, I can 'bear down,' when I don't have it, I can't." How true is this, and how often I have heard it. As a further illustration, I was called a few years ago, to attend a Mrs. L., and found a woman of little energy and somewhat feeble. After being in labor ten hours, the os was dilated only about an inch, and somewhat rigid. She was much prostrated, pains feeble, and her voice reduced to a whisper. Her case was somewhat alarming. But she said in a whisper, "give me chloroform." I said "No," you have hardly any pains now." But she said again, "give me chloroform." So I gave her a small quantity and thought her pains were better; gave her more, and pains increased: so gave her more, and noticed her pains "bore down" heavily, and in less than twenty minutes the child was born. This effect of the chloroform astonished me but the fact was plain.

Case 2. I was called some time ago, to attend a Mrs. B., a robust woman, whom I had attended in eight previous labors. Her labors were generally severe. I have seen her frightfully sick for forty-eight hours. At this time labor had scarcely commenced, but she was wild. Her eyes seemed to flash fire. She rushed across the room, almost frantically. I said, "be patient, wait until you have a few pains, and I will give you chloroform, and then you will be easier." But she said, "Don't talk to me, I know what I have got to come to." I induced her to lie upon the bed, and carefully administered chloroform until she was unconscious. Gave her more than I had ever given in such a case. I noticed her pains bore down heavily under its influence, and in a very few minutes her child was born. She soon aroused and exclaimed, "O, what a nice dream I've had! Such beautiful green trees!" and viewing the surroundings then said, "Have I been sick?" I replied, "I believe you have, Madam, by the looks of this boy. He will weigh over ten pounds." "O doctor!" said she, "take that little vial every place you go." After such experiences as these (I could give many more) you will readily perceive why I read with disgust utterances from learned professors, notably from the late Professor of Obstetrics in Jefferson Medical College, Philadelphia, that chloroform deadens pains and retards labor. My many years experience teaches me that chloroform, properly administered, almost never retards labor and I have never seen any unpleasant complications. Perhaps the reason may be the notably small doses I invariably give, but these take off the sharp edge of labor pains. They save the strength of the patient, and the terrible exhaustion of labor, consequently the women who take chloroform invariably have a good "getting up"—a great desideratum. One great proof of its benefits is the experience of women who have used it, and experienced its benefits. They generally become enthusiastic in its favor, and will not suffer themselves to be again confined without it. Talk about other anesthetics in labor, I consider them all (ether included) unworthy to be mentioned at the same time with chloroform. I therefore recommend chloroform in almost every case when the pains become what they call "unbearable," especially in the last stages of labor, and consider it (to parturient woman) the greatest boon vouchsafed by an omniscient God.

THE PHYSICIAN AND THE SOCIAL EVIL.

The social evil has ever been a question of importance among all civilized people. It has existed among all peoples, and in all ages, and all kinds of laws have been enacted to regulate and control prostitution. It is a matter of early education and cannot be suppressed by any laws man can make.

The primary, fundamental passion in mankind is the sustenance of life. As food becomes scarce there is nothing man will not do, even to killing and eating members of his own family, to sustain life. Standing next to this strongest passion of man, we find that of propagation of life almost as intense. These two passions are as permanent as the race itself and no human law can suppress them.

The question naturally arises, why do these passions give rise to so much evil and how can this evil be prevented, or reduced to a minimum? The respective answers are very plain: Ignorance, and by education. And it is essentially the physician's place and duty to educate the masses on this subject. How many parents throughout our land teach their children anything about their passions or the propagation of life? Very few, indeed, know anything, more than the animals know, about it themselves, and how then can they teach others. If the children question them they are embarassed and reply with, "'Sh! Arn't you ashamed." "Shame on you!" and the child gets the information where it can, and many times to its own sorrow, while we wonder why the social evil grows and how we are to control it.

If more parents understood this question and the fact that they cannot suppress and many times they stimulate the passions of their children by shaming them; if they would explain the subject, carefully showing them the good and evil, and to the best of their ability teach them perfect self control in all things, the social evil would rapidly assume less importance and soon be limited to the degenerates and the very lowest elements of our race. By issuing licenses of toleration these people could be placed under police and medical supervision, and venereal diseases, instead of blighting so many of our homes would soon be nothing but a sewer for the degenerate.

The church makes no effort to understand this subject, and study it from a scientific or practical standpoint, but holds up its hands and cries shame! shame! educating the people to a false standard of morality and trying vainly to suppress that which would suppress the race. To the physician then is left the task of educating the people on this subject and to such as are not satisfied that the above propositions are the correct ones or to those who wish more light on a dark subject I would say get a copy of Sanger's History of Prostitution and after a careful reading loan the book to your clergyman and other teachers and see what you can do personally to increase the well being and promote the happiness of the race.

AUTHORITY IN THE MEDICAL WORLD.

Authority in the medical world is worshipped as in the theological world. It is almost as changeable. What is offered today is accepted if it comes from a well known author and recent text-book. It is liable to be displaced to-morrow by the product of a more modern investigator. We are in search of new things continually. Opium, chloral, sulfonal, paralize nerve centers and invite sleep, but we want a new hypnotic that will do the work better, and at less risk of life.

Where advanced civilization is there is the pharmacist, the drug store, the hypnotic and the asylum. Where nature is uncomplicated and unguided by science or art, there sleep is, with no pharmacy, drug store, hypnotic or asylum.

The undomesticated animal in field or forest, lives his full years, barring accident and starvation; normal sleep comes, normal exercise, and normal appetite come. Nature endowed animal life with needs, and with self-helping capacity to supply needs.

Man is now born and reared in an atmosphere of disease germs with pathological outlines and organs visible on every hand from infancy up. The doctor and the trained nurse will soon be part of every regulated household. Is it strange then that we still regard disease and suffering as a part of God's ordained provisions, and medication a complementary part?

The history of medication as an antidote for suffering or disease is not a history of nature study. Just when in the long years since mankind determined to draw a line between his kind and the lower animal kind the worship of the mysterious remedial agent began we may not know. It is now visible to the student of nature that the disease germ has developed and increased along with our accumulations of crude and refined drugs.

From the elevation of physiology, hygiene, normal sanitation, and full grown bodies we look in this nineteenth century down upon a pothological, unhygienic, unsanitary army of struggling, suffering, discontented, dwarfed humanity. Civilization has begotten wants the supply of which is followed by disease and deformity. Modern attempts to re-civilize civilization, and restore the normal outlines and organs, such as the fiat of the Almighty created when Adam sprung up from the dust of the earth, and Eve from one of his ribs, have so far failed. We now acknowledge the minute, invisible microbe may enter by the respiratory or alimentary canal, take possession of any and all the organs, feast there at our expense by consuming the organized lung or nerve cell, the white or red corpuscle. This microbe over which God ordained man to guide and control has come to the ascendency.

Taking a glance backward over this long period since creation dawned, and our primitive ancestors began in the garden of Eden, I was led to inquire if we might find any method of inviting sleep short of the United States Dispensatory. By this question the whole medical fraternity has been confronted.

URINALYSIS.

When a patient presents a specimen of urine to his physician for examination, how often the announcement is made to him that it is all right after the test for albumen has been applied with negative results.

Surely this ought not to be! The absence of albumen indicates very little. Its presence may mean something very serious, but the demonstration of its absence and continued absence has been shown one of little real value if not accompanied with additional information.

What is the real information that our patient is trying to gain when he presents a specimen of urine for analysis? He wants to find out if his kidneys are structurally sound and performing their function properly. To answer that question fully modern investigation has done very much. We must know the quantity of urine passed in twenty-four hours. We must compute the amount of urea excreted, as this is the best index of the integrity of the renal ephithelium of the tubule. There are a number of clinical tests which offer very ready methods for this, although they give approximate results only. We must examine the specimen by microscope for organic and inorganic substances. We must gain some idea of the character of the work the kidney is called upon to perform in an individual case, whether it is being overtaxed by abnormal products formed in the digestive tract. The presence of indican, being one of the many substances included in the latter category, is important to determine. We advise our readers to procure Dr. Charles E. Simon's book, "A Manual of Clinical Diagnosis by Means of Microscopic and Chemical methods." We advise them to use it, commit it to memory as an aid in these examinations. It brings complicated methods within the reach of the everyday worker. It is the best book of the kind we know of; we feel that it ought to be more used.

A TEST OF THE LAW OF VACCINATION.

The legality of an ordinance in the city of Columbus, Ga., for compulsory vaccination is now before the Supreme Court of that State. Three men were fined $100.00 each by the recorder for refusing to be vaccinated, have carried their cases to the higher court. Strange to say the question involved has never been decided in many of the States. There are decisions in a number of them sustaining city ordinances requiring vaccination of school children, but none, so far as is known, compelling adults to be vaccinated on other grounds. It is claimed by the parties of this action, that they were arraigned and fined without a trial by jury; that this contravened the Constitution of the State and that of the United States, both of which declare that no person shall be convicted of a penal offence without trial by jury. We await with interest the outcome of this conflict between sanitary laws and constitutional rights.

BOOK REVIEWS.

TEXT-BOOK OF MEDICAL AND SURGICAL GYNECOLOGY. For Students and Practitioners. By R. W. GORRELL, M. A., M. D. J. A. Carveth & Co., Medical Publishers, Toronto, Canada.

Great progress has been made in every domain of medicine. Every branch has felt the new impulse, but in no department has it been so marked as in this one. Twenty years ago it was a mere appendage to obstetrics, the teaching of it being limited to a few lectures at the end of the session; to-day it is one of the most honored chairs in every medical curriculum. This work is a few steps in advance of regular notes in class room and not too cumbersome to carry backwards and forwards to class. This is a very important feature. By such means it will make class attendance less burdensome or irksome, the material imparted more instructive and lessen the time required by students in securing an accurate knowledge of the subject. Not only will the work be useful to students, but also a most useful adjunct to the general practitioner, when busy life prevents him securing on all occasions the time necessary for consulting larger works. In the arrangement of the work the author has adopted regional classification in preference to a pathological one. The work contains something over 400 pages, and is a most excellent work in every respect.

A Clinical Text-Book of Surgical Diagnosis and Treatment for Practitioners and Students of Surgery and Medicine. By J. W. Macdonald. M. D., Graduate in Medicine of the University of Edinburg: Licentiate of the Royal College of Surgeons, Edinburg: Professor of the Practice of Surgery and Clinical Surgery in Hamline University, Mineapolis, etc. Philadelphia: W. B. Saunders, 925 Walnut St. Price, cloth $5.00; half mor. $6.00 net.

Year by year the scope of surgery is expanding and as new territory is added to his domain the surgeon must widen his field of investigation. Until a few years ago he worked within a narrow sphere, and devoted about as little time to the study of diseased conditions in the abdominal, thoracic, and cranial cavities as the modern oculist gives to general medicine. All this is changed. To-day there is no organ of the body beyond the legitimate field of surgery, no cavity whose innermost recesses cannot be explored.

This book is plainly the achievement of a man who is a good teacher; from beginning to end it is clear, concise and independent of other men's work, yet acknowledging their influence. Altogether it is an excellent piece of writing, the outcome of continued, patient, hard work, and we have very little doubt that it will rapidly win for itself a large measure of success. An abundance of good material is crowded into the volume, and the standard of accuracy maintained is very high.

The work is divided into the following Chapters: I. General Examination of Patients; II. Examination of the Vascular System; III. Injuries and Diseases of the Osseous System; IV. Injuries and Diseases of Muscles, Tendons, and Bursæ; V. Injuries and Diseases of Joints; VI. Injuries and Diseases of the Digestive System; VII. The Genito-Urinary System; VIII. Injuries and Diseases of the Head; IX. Injuries, Diseases, and Deformities of the Spine; X. Diseases and Injuries of the Nerves; XI. Injuries and Diseases of the Respiratory System; XII. The Diagnosis and Treatment of Syphilis; XIII. The Diagnosis and Treatment of Tumors; XIV. Diseases and Injuries of the Neck; XV. Injuries and Diseases of the Breast; XVI. Diseases and Injuries of the Female Generative Organs; XVII. The X Rays in Surgical Diagnosis.

From the preceding synopsis one can readily see the magnitude of this work. In his preface he states that the first question is, "What is the disease or injury?" The second question is, "What is the proper treatment." The young practitioner is often embarrassed by not knowing how to make a systematic examination in a case of injury, and he may be placed at a disadvantage by the criticism of excited bystanders. The man who goes about the examination of his patient in a systematic manner, leaving nothing undone, and guarding against all contingences, will not only commend the approval of the patient and his friends, but will protect himself against dangerous errors. In the following pages care is taken to make the examination of each disease or injury systematic and comprehensive, and directions laid down as to the methods of examination. The book contains about 800 pages, and as a need for the general practitioner and surgeon it has no equal. We cannot too highly commend it to our readers.

International Clinics. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynecology, Obstetrics, Ophthalmology, Laryngology, Pharyngology, Rhinology, Otology and Dermatology, and especially prepared papers on treatment. By Professors and Lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by Judson Daland. M. D., (University of Pennsylvania), Philadelphia; J. Mitchell Bruce. M. D., F. R. C. P., London. England; and David W. Finley. M. D., F. R. C. P., Aberdeen, Scotland: Vol. III seventh series. 8vo., pp. 360. Illustrated. Philadelphia: J. B. Lippincott Company, 1897.

This book comes to us containing valuable articles that have characterized the other volumes of this publication. In selecting the subject matter the editors have judiciously selected that which will prove of the most practical value to the busy practitioner in his routine work. The Treatment of Tuberculosis, by Dr. Bridge, will be found of special interest and value as a chapter in this work. Also the chapter on the treatment of inherited syphilis, contributed by

Dr. Sansom, is a valuable one. The work is full of many such articles, but space will not allow all discussed. We always welcome these books, and heartily recommend them to our readers.

CONSTIPATION IN ADULTS AND CHILDREN--With Special Reference to Habitual Constipation and its Most Successful Treatment by the Mechanical Methods. By H. Illoway, M. D., formerly Professor of the Diseases of Children, Cincinnati College of Medicine and Surgery; Formerly Visiting Physician to the Jewish Hospital, Cincinnati, Etc., Etc.: Member of the Medical Society of the County of New York; of the New York County Medical Association, Etc. New York: The MacMillan Company. London: MacMillan & Co., Limited, 1897.

The subject of the above volume is one of great importance and of very great interest to the physician, yet its treatment by most writers is always meagre and very unsatisfactory. This book contains nearly 500 pages and is divided into Part I. and Part II. Section 1. of Part I. treats of the Anatomy of the Intestines, with sub-divisional chapters. Section 2. considers the general treatment. Part II. is devoted to Constipation in Infants and Children. Among the many interesting chapters found in this work we would refer our readers especially to the one on Intestinal Peristalsis. It is both interesting and instructive. Also to the chapter on the consequences of Constipation—"these being hemorrhoids, anal fissure, typhlitis, appendicitis, proctitis, fecal tumors, ulceration of bowels, etc., etc." Numerous anatomical illustrations are provided to elucidate pathological conditions. We cannot speak too highly of this work, and we congratulate Dr. Illoway on his work.

THE CARE AND FEEDING OF CHILDREN. A Catechism for the Use of Mothers and Childrens' Nurses. By L. EMMETT HOLT. M. D. Second Edition. Revised and Enlarged. New York: D. Appleton & Co. 1897.

Scarcely do we find so much valuable material in so little space. This is probably one of the most practical and useful little books that has been our pleasure to review. Not only is it of incalculable value to mothers and nurses, but the physician will find in reading its pages very instructive information. It deals with the every day things in childrens' lives. The common place things which are very simple, but when physicians are pinned down to the every day questions very few can give the desired information. It tells you how to take care of a well baby, the proper food at the proper time; how to prepare the bath, and at what temperature, and all the little things that tend to keep children in a healthy condition. It is neatly gotten up and nicely printed. We can certainly highly recommend the book.

VADE MECUM OF OPHTHALMOLOGICAL THERAPEUTICS. By Dr. Landalt and Dr. Gygax, Philadelphia: J. B. Lippincott, 1898.

This little work puts into the hands of the profession a vade mecum containing in a condensed form the indisputable facts of special therapeutics. The headings have been arranged in alphabetical order and a great deal of pains has been taken as to the dosage of certain remedies and the appropriate form of administering them. The little work fills a very desirable purpose. It is printed on good paper with good binding.

TRANSACTIONS of the American Surgical Association. Volume the Fourteenth Edited by DEFOREST WILLFORD, A. M., M. D., Ph.D.

The annual transactions of this Society always appear promptly and in good form. This edition is certainly no exception to the rule. Dr. Maurice H. Richardson is Secretary of this Society. The subject matter found in these transactions is certainly of a very high order and will serve inestimable value to the reading physician. The President, Dr. Louis McLane Tiffany, chose for his Presidential Address, Intra-cranial Operations for the Cure of Facial Neuralgia. One of the most interesting and valuable papers read before the Society is that by Dr. Maurice H. Richardson, Secretary. The subject of his paper was Two Cases of Perforating Gunshot-Wound of the Kidney. These transactions are well worth the perusal of physicians.

PROCEEDINGS of the Connecticut Medical Society. 1897. Held at Hartford.

There has been a wonderful improvement in the general reading of Society Meetings of late years as well as in the marked advance in the mechanical make-up. These transactions now are preserved as any other book, while heretofore they were paper backs and usually thrown away. A great many valuable articles will be found in these transactions. They are neatly bound.

TRANSACTIONS of the New Hampshire Medical Society at the One Hundred and Sixth Anniversary held at Concord, N. H.

These transactions contain 318 pages and contain some very valuable papers read by members of the Society. They are very well gotten up and will always be useful for reference.

HALLUCINATIONS AND ILLUSIONS—A Study of the fallacies of Perception by Edmund Parish. Scribner's Sons. New York, 1897. Price, $1.25.

This work contains nearly four hundred pages and is filled with interesting and psychological reading. In most other books of this kind writers treat for the most part only of single aspects of the subject, such as fallacies of perception occurring under morbid conditions, or in dreams, throwing at most but a glance at related phenomena. The waking hallucinations of healthy persons are more or less completely ignored by them. The work is nicely printed.

TRANSACTIONS of the Michigan State Medical Society for the year 1897. Vol. XXI.

We thank Dr. Collins H. Johnston, Secretary of this Society, for these transactions. In this book is well recorded the proceedings of this Society, including papers read and discussions held. The Society makes a creditable showing. The volume contains nearly five hundred pages.

LITERARY NOTES.

LIPPINCOTT'S MAGAZINE FOR JANUARY, 1898.—The complete novel in the January issue of Lippincott's is "John Olmstead's Nephew," by Henry Willard French. A hurried marriage is necessary to secure some solid interests and defeat an enemy, and thereon hangs a romance.

"Christmas Gold," a tale of Australia, by Owen Hall, and "Christmas Eve at Bilger's," which was in a western mining camp, by Frank H. Sweet, celebrate the season. Why should Christmas stories appear a month ahead of Christmas? These are just in time.

Philip G. Hubert, Jr., tells at some length, but in a lively way, of "A Detective who Detected." He was a newspaper man; it was a literary crime that he was set to detect, and while on the trail of it found something else.

"Canuck and Raoul" were a Canadian boy and a horse, between whom a strong affection existed. Elizabeth Knowlton Carter is the narrator.

Calvin Dill Wilson writes pleasantly of a subject which he knows by heart, "The Eastern Shore of Maryland." "Irrigation from Under Ground," by John E. Bennett, takes the reader to the other end of the United States, and gives much unfamiliar information about the arid regions, and how they may be made habitable and fertile.

Among "Some Botanic Gardens," Geo. Ethelbert Walsh finds those of London and Paris most important, but gives brief mention to others in vrrious parts of the world.

George Archie Stockwell seems to prove that the belief in "Wolf-Children," from Romulus and Remus on, is something more than a superstition. Oscar Herzberg finds a good deal to say about "Druggists, Ancient and Modern."

Under the heading, "To-day in the Bible," William Cecil Elam collects many familiar expressions, strokes of humor, observations and reflections on life and human nature, sharply pointed sayings, and what not, which people often use without knowing their origin.

The old chronicler, "Froissart," is affectionately handled by Emily Stone Whiteley.

What would you do if war should be declared to-morrow with a European power? How would it change your home life, the lives of your brother and other relatives? How would it affect your business connections and business? What changes would it make in financial, city, states and national affairs? It is these interesting problems which a writer in the December Cosmopolitan has undertaken to sketch under the leading of "A Brief History of Our Late War With Spain," at the same time vividly describing the exciting scenes which would attend the opening of hostilities. This same number of The Cosmopolitan has an article on "The Well-dressed Woman" by Elsie de Wolfe, a contrast of the characters of Henry George and Charles A. Dana by John Brisben Walker, in another place "The Lovers of Goethe," while Wells' story, "The War of the Worlds," which has beeh so widely read, reaches its conclusion in an unexpected way.

Scribner's Magazine begins its twelfth year with the January number and in the opening pages gives a foretaste of two of the leading features of the next twelve months. The frontispiece by Clinedinst gives a characteristic scene in a Virginia mansion on the night of a party in the days before the war. This is from Thomas Nelson Page's serial novel, "Red Rock," which in this opening instalment pictures the youth of the leading characters. Immediately the scene will shift to Reconstruction days, and the stirring times after the war, when carpet-baggers dominated the South, will be depicted. No living writer is so well able to portray this epoch as Mr. Page, whose own youth passed in those years.

The leading article is Senator Lodge's great historical narrative, "The Story of the Revolution."

NEW ILLUSTRATED LITERATURE.—The Passenger Department of the Seaboard Air Line has just issued two new Illustrated Books; one entitled "Education in the South," giving a full and complete list and description of Schools, Colleges and Universities along the Seaboard Air Line; the other entitled "Winter Excursions via Seaboard Air Line," in which appears descriptive and illustrated sketches of the numerous Winter Tourisi Points reached via the Seaboard Air Line.

Au exceptionally convenient feature of this book, is the arrangement of excursion rates and routes to the principal Florida, Texas, Mexico and California Resorts which show considerable reduction in total rates, especially to Southern Pines, N. C., the famous Winter Health Resort, which was so well patronized last season.

Copies of these books can be secured by addressing T. J. Anderson, General Passenger Agent, Portsmouth, Va., enclosing five cents in stamps to cover postage.

THE LIVING AGE.—*A New Year and a New Volume.*—The number of The Living Age for the week ending *January 1st* begins a new volume and a new year of that standard periodical. In this volume the striking serial story, "With All Her Heart," translated expressly for The Living Age from the French of Rene Bazin, will be continued until its completion. Its conclusion will be immediately followed by the publicatian of a new serial of unusual interest.

In 1898 it enters, with renewed interest and vitality, its fifty-fifth year. During the year now closing it has widened its scope and enlarged its volumes, enriching its pages with choice selections from the works of the most able authors and men of affairs of Continental Europe, on subjects of intelligent and timely interest, and given in a Monthly Supplement extracts from leading American magazines and readings from new books, thus establishing its claim as the reflection of the whole world's living literature.

Early numbers of the magazine will contain among other thoughtful and important papers, one on Modern Education, by J. P. Mahaffy; M. Ferdinand Brunetiere's Impressions of America, translated for The Living Age from the Revue des Deux Mondes; Some Reminiscences of Thomas Henry Huxley, by Prof. St. George Mivart; The Dual and the Triple Alliance and Great Britain, by Francis de Pressence; and the evolution of the idea of God, by Andrew Lang; and from week to week will appear articles by the world's foremost thinkers, investigators and authors.

The beginning of a volume is an excellent time for the beginning of a subscription, and the publishers still present to new subscribers for 1898 the eight numbers of 1897 containing the first instalments of "With all Her Heart."

To every one who would keep abreast of the best thought of the time, the periodical is in fact almost a necessity. With fifty-two numbers aggregating three thousand, five hundred large pages the subscription price, $6.00 is low; while for $9.00 the publishers offer to send any one of the $4.00 American monthlies or weeklies with The Living Age for a year postpaid.

The Living Age Co., Boston, are the publishers.

The Treatment of Hemorrhoids.

In contrasting the clamp and cautery operation with the ligature operation for hemorrhoids, Dr. Coston (Medical and Surgical Reporter) has these points to make in favor of the clamp and cautery:

1. In the operation with the ligature you tie up the most sensitive of all nerve ends, and there is intense pain, which will be kept up until the stump sloughs and the ligature comes off. In the cautery operation the nerve end is simply cut away and cauterized, and there is nothing left for it to do but cicatrize, and it is left in the very best possible condition for this.

2. The ligature may slip off and secondary hemorrhage occur; after the clamp and cautery operation there is no danger of secondary hemorrhage. If hemorrhage occur, it occurs immediately, and the operator can only blame himself for it.

3. There is no danger of a recurrence. Kelsey, of New York, and Smith, of London, who have a large experience with operation, support me in this statement. It will be admitted that recurrences do follow the ligature operation.

4. Convalescence is much more quickly completed, for the reason that it begins at once under the eschar produced by the cautery, and would be completed by the time the ligature comes away should the two operations be used on separate tumors in the same case.

5. The mortality following the clamp and cautery operation is practically *nil.*

6. The clamp and cautery operation requires less after-care from the operation.

7. There are no unpleasant sequelæ.

Mal-Diagnosis of Sub-Coracoid Dislocations.

Simple and common accidents are sometimes perplexing at the start, and vexatious if not humiliating to the physician at the finish of attendance. The tyro is sure to meet them, and the sincere veteran will not pretend a self-righteous escape from their occasional bad outcome. The former is entitled to and will receive from the latter more than commiseration, to wit: a helpful and protecting hand and brain. A psychic quarter of our ego, called conscience, is more reliable than a proclaimed code of ethics. It is not always peeping around the corner to discover a *quid pro quo*.

Among these accidents the one indicated in head line is chosen somewhat haphazardly, yet with a purpose of useful criticism and hint. Dislocations of the humerus occur as frequently as all other joint displacements combined, and the sub-coracoid is by all odds the most common type. Diagnosis of the latter is usually easy, but not always.

The stereotyped characteristics of this injury may be securely fixed in the student's memory by lectures, reading and pretty wood-cuts. But alas! let him be called singly to a distant and long waiting subject of this accident. Suppose this victim (the patient) to weigh, say, 200 pounds, his skeleton thickly padded with muscles and fat from chin to Achilles' tendon. Add to this an irregular heart action and may be albuminuria—determined in anticipation of necessary anæsthesia. The doctor suspects dislocation but he is not sure of it. It is a long way to help and he charitably (to himself) questions whether it may not be only a severe contusion after all. Then the torturing and futile manipulations of the long end of the lever begin—and end in doubt. Is this unavoidable? Is anesthesia to aid in reaching a conclusion, as necessary as authority prescribes? We think not. Too much stress is laid upon the usual and pronounced symptoms, and not enough on the sense of touch and familiarity with the normal shoulder.

Experience suggests this hint, Don't touch the injured shoulder until you have carefully surveyed the sound one, especially with reference to the anterior prominence of the head of the humerus. Next grasp the sound shoulder, thumb pressing the head in front, index finger pressing the outer side, close to the acromial tip, end of the finger pressing firmly beneath the posterior arch of this process. Now treat the injured shoulder the same way—still grasping the sound one —and compare" results. Press the thumb on the hurt joint gradually firmer and firmer where the head ought to be, until by comparison of the two shoulders the demonstration is clear, which it will be in nearly all cases. It hurts some but not as much as the desultory pump or coffee mill handle movements which the bone shaft is too often forced to imitate.

B. W. H.

Croupous Pneumonia.

Croupous pneumonia is a specific constitutional disease with local manifestation caused by the Germ Diplococcus Pneumoniæ, of Frankel, or the Micrococcus Lancenolatus Pneumoniæ.

Symptoms:—Generally preceded by prodromata, anorexia, headache, vertigo, epistaxis, rigors and frequently pronounced chill, acute pain in region of engorged surface, with dyspnœa, rapid breathing, elevation of temperature and acceleration of pulse, cough and expectoration of frothy mucus followed usually in a very short time with the characteristic brick dust sputa. Urine scanty, high colored and usually of a high specific gravity, constipated bowels, nauseated stomach, if not vomiting.

Treatment:—We have no specific treatment for pneumonia as it can no more be aborted than typhoid fever or any other infectious disease. All these so-called abortive cases of pneumonia are nothing more than pleurodinia, acute indigestion, or some little pain, pleuritic in character, which by proper medication may be mitigated in a very short time. The only hope we may entertain for a specific treatment in this disease is in serum-therapy. We have been promised a great deal in this direction but have realized but very little as yet.

As to medicinal treatment, mild, uncomplicated cases, need but very little at the beginning. In severe cases where the nervous system is seriously disturbed, a hypodermic of morphia with atropia acts very nicely by relieving the pain and equalizing the circulation of blood. The pulse rather than the temperature requires our careful attention. Mercury, bicarbonate of soda, and podophyllum resin should be given until free action of the bowels is obtained, tonic doses of quinine from the beginning, which lessens the fibrine elements of the blood, and Ringer says not only lessens the number of leucocytes but arrests their amœboid migration from the blood vesse s, carbonate of ammonium, tincture digitalis and strophanthus are specially indicated. Cerate of cantharides plaster over engorged surface in stage of resolution. Strychnia given regularly if any indication of asthenia of right cavities of heart. This is our most reliable agent in warding off heart failure. A well regulated dietary is very essential; sweet milk and lime water; meat juices, broths, eggs, etc., should be allowed at regular intervals.

W. A. Murphy,
Burns, Texas.

Aseptic Vaccination.

Dr. R. W. Leftwich, in discussing this question in the British Medical Journal, says:

The inoculation of disease by vaccination is of such rarity as to be a curiosity, but what may be called the accidents of vaccination, such as diffuse erythema, cellulitis, and even erysipelas do occasionally occur, and they commonly arise from no fault of the surgeon. The child leaves the surgery or vaccination station with several recent abrasions exposed to the air, and, especially it they are not quite dry, in a favourable condition for the cultivation of bacteria, streptococci, etc. About the sixth day the vesicles are frequently broken, and a fresh opportunity arises for germ introduction. But if strict antiseptic precautions are of untold value in surgical operations, why are they not adopted for vaccination, which is itself a minor operation?

There are some little practical difficulties attending the dressing of vaccination wounds, but, after trying a number of different methods, I find the following gives completely satisfactory results. My armamentarium contains the following appliances; Discs of oiled silk kept in absolute alcohol, salicylic wool, perchloride of mercury gauze, a reel of ½-inch strapping, a 1½-inch crepenette bandage, und germicide soap solution.

The arm is first washed and dried. The usual number of scarifications is made over, or a little below, the insertion of the deltoid with a lancet which has been previously held in a spirit flame. The discs are taken out of the spirit with aseptic forceps and dried upon wool. The blood that has oozed is wiped off, the lymph, blown upon the lancet, is spread on the scarifications, and a disc is laid over each. A layer of wool, allowing a good margin, is placed over the discs, a piece of gauze follows, secured by two transverse and one vertical strip of plaster, and the whole is covered with two or three turns of the bandage. At the end of a week the arm is examined, and if necessary pricked. The dressing is then renewed *minus* the discs, and is directed to be untouched for another week.

With these precautions there is practically a complete guarantee against germ introduction, and also against the application of unsuitable dressings, such as cold water cloths. The additional time required is slight, and there is no tedious—and perhaps dangerous—waiting for the abrasions to dry.

I have searched, as far as my time allows, for evidence that this somewhat obvious method has been already adopted; but the only treatment at all similar is the antiseptic pad devised by Mr. Bark. This, however, is not used until the eighth day, and, although advantageous as far as it goes, is open to the objection of shutting the stable door after the steed is stolen.

It is not suggested that the superiority of the aseptic method is proved. It would take many thousands of cases to do this. But it is claimed that a *prima facia* case has been made out for its more general adoption. Lymph can now be obtained which is not distributed until the calf has been demonstrated to have been healthy by a necropsy, and, coupled with the use of such lymph, the above method probably renders vaccination at least as safe as the operations of the hairdresser.

Ante-Partum Hæmorrhage.

At a recent meeting of the Glasgow Obstetrical and Gynecological Society Dr. Jardine read a paper on *ante-partum* hæmorrhage, with an analysis of 51 cases of placenta prævia taken from the journals of the Maternity Hospital. (Glasgow Medical Journal.) He gave notes of 8 cases of placentia prævia (which had occurred in his private and hospital work during the past year), and 4 cases of accidental hæmorrhage. The first child, a male, had a complete placenta prævia, and the edge of the placenta of the second, a female, was within the area of the placenta prævia. Both were born alive by version, and the mother made a good recovery. Intravenous transfusion of a pint of saline fluid was resorted to in anothes case of complete placenta prævia with good results. One case proved fatal from hæmorrhage from a laceration of the cervix. He insisted that each case should be treated on its own merits, and that no one method of treatment sufficed for all cases. Bipolar version was perhaps the method that could be most frequently used, but he warned them against the temptation to deliver too quickly. In the cases of accidental hæmorrhage two were specially interesting. The first one was sent to hospital as a case of placenta prævia, for which it had been treated by plugging. The hæmorrhage had begun twelve hours before admission, and the vagina had been plugged three times. The patient was absolutely blanched. She was stimulated, and given a rectal injection of a pint of saline fluid. On examining he had found the uterus distented and full of clot. She was delivered by accouchement forcé, and the placenta, which was completely separated, was at once removed with a very large amount of clot. Hot douches checked the hœmorrhage but the patient died in half an hour. A further rectal injection of saline was used, and also one into the areolar tissue of the breast. This case had undoubtedly been one of external accidental hæmorrhage, whieh had been converted into a concealed one. Dr. Jardine drew attention to the statements made in Jellett's book, both by the authcr and Smyly, that there was no danger of this happening. He strongly insisted that plugging in external accidental hæmorrhage was a dangerous proceeding. This treatment was based on the supposition that in these cases the uteri were healthy, and that as soon as the pressure inside was greater than the blood pressure, the hæmorrhage would cease. Dr. Jardine maintained that in the majority the uterus was not healthy, and there was, therefore, great risk in converting an external into a concealed hæmorrhage. The second case was one of induction for contracted pelvis. Bougies had been used to induce labour, but the progress had been so slow that he had introduced Champetier de Ribbes's bag forty-eight hours after the commencement. The os admitted two fingers easily. The bag when about two-thirds full burst inside of the uterus, and the patient collapsed. The bag was withdrawn at once, when very severe hæmorrhage came on, The placenta had evidently been partially separated. He quickly dilated manually and turned. The child was alive. The patient rallied, but severe bleeding came on, evidently from the cervix, about half an hour later. Six pints of saline fluid were transfused into the median basilic vein, and, after the hot douche failed to check the hæmorrhage, the cervix and vagina were plugged, but she died two hours and a-half later. The bag had been made of rubber. Two others had burst in his hands, but they had fortunately given way in the vagina. He strongly condemned these rubber bags. The bag should be made of silk. In the treatment of concealed accidental hæmorrhage he had found accouchement forcé did not give good results. He had not tried Porro's operation, but would be inclined to do so if he were unfortunate enough to have another bad case to deal with. In such a case he would transfuse a saline before operating.

The X Rays in Obstetrical Diagnosis.

Levy and Thurnim record a method of measuring the dimensions cf the pelvis by means of the Roentgen rays. (British Medical Journal.) Previous attempts had been made by means of plates introduced into the vagina, and had failed on account of the limited space and the length of exposure required. The authors place the patient horizontally over a plate 12 by 16 inches in size, and set the tube vertically over the symphysis, and exactly 20 inches above the centre of the plate; an exposure of two to five minutes suffices to give a satisfactory skiagraph, on which the pelvis is faithfully represented. This is measured, and as the distance of the tube from the plate is known, the pelvic dimensions can be accurately computed. To facilitate this Levy has designed an instrument on the principle of the pantagraph, by which the true conjugate can be mechanically determined. The transverse diameters at the brim and outlet can be estimated with equal certainty, and the method has been satisfactorily tested in a number of cases in Landau's clinic. Further investigations have been carried out by the authors on pregnant women with flat pelves in order to ascertain the dimensional relations between the fœtal head and the pelvic outlet, but the results are not at present unobjectionable; further research is being undertaken, and a satisfactory and practical outcome is anticipated.

Intestinal Toxemia.

Gould, on December 10th, at the Clinical Society of London, read a paper on a case of Acute Intestinal Obstruction relieved by operation in which death occurred on the ninth day from Intestinal Toxemia (Lancet). The patient was a man, aged forty-three years, who developed symptoms of acute intestinal obstruction after receiving a strain at his work. On the fourth day the abdomen was opened and a coil of small intestine was found in the pelvis adherent and twisted on itself. This was liberated and at once the fluid intestinal matter passed into the collapsed lower ileum and cæcum. Next day a small motion was passed and two days later flatus passed freely and also a large formed motion showing that the obstruction was relieved. For three days after the operation intestinal matter regurgitated into the stomach and was removed by washing out the stomach on three occasions. The patient took fluid food well and there were no signs of peritonitis, but still the urine continued to give a very dark indican reaction with nitric acid and gradually he passed into a condition of stupor, deepening into coma, accompanied by a slightly quickened pulse, quickened, deep, and noisy respiration, a subnormal temperature which was lower in the rectum than in the axilla, profuse diarrhœa, the motions being of a peculiar odor and of a grey-green colour, and the skin was covered with a dry erythematous rash. These symptoms first reached their maximum on the sixth day after the operation; four pints of saline fluid were injected into a vein and immediately all the symptoms passed away. He relapsed next day and saline fluid was again injected with marked benefit. Two days later he again became unconscious and died comatose in spite of a third injection of salt and water. All this time the urine contained a great excess of indican and Dr. P. A. Young, who analysized the urine, found that another chromogen was present which was converted into dark brown pigment by oxidation but was not melanin. Gould pointed out that the symptoms were toxic and their slow onset, coupled with the marked instantaneous effect of saline infusion and the succeeding relapse, he took as showing the poison was a chemical one which only exerted its influence when in a certain degree of concentration.

Serumtherapy in Erysipelas and Pyæmia.

Parascandolo records a new series of systematic researches into this subject. (British Medical Journal). The first point investigated was the relation of streptococcus pyogenes to that of erysipelas. He finds that the serum of an animal immunised in respect of one of these organisms prevents the growth of a culture of the same organism *in vitro*, and also cures animals into which such a culture has been injected. Neither microbe has, however, these actions in respect of the other; thus, the serum of an animal immunised against pyogenes has no curative effect upon another suffering from erysipelas. The author hence concludes that these organisms are specifically different, and that "anti-streptococcic" serum for the treatment of erysipelas must be prepared from cultures of streptococcus erysipelatosus; the serumtherapy of pyæmic diseases is hence placed on a new and firmer basis by the establishment of the differentiation of the streptococci causing them. The next question studied was the comparative value of various nutritive media for cultivating the organisms; the author finds that peptonized beef bouillon with the addition of sugar forms the best of these as regards the rapidity of growth. For increasing the virulence of the cocci no method is found to be more potent than to grow them on this peptonised bouillon containing 2 per cent. of glucose. The greatest virulence obtained by the author was such that one-millionth of a cubic centimetre of the culture killed a guinea-pig weighing 400 g. in forty-eight hours; no one has been able to confirm Marmorek's statement that a toxicity of 100 times this strength can be reached. Parascandolo further finds that the best method of immunisation is by the use of the toxins of virulent organisms and not of their cultures. Lastly, he states that the serum of animals immunized by toxins, whether of staphylococcus pyogenes albus, aureus citreus, streptococcus pyogenes, or erysipelatosus, is a more valuable remedial agent than that of animals immunized by the cultures of the same organisms.

Value of Antiseptic Soap.

Curzio, according to the American Medico-Surgical Bulletin, has made an experimental study to ascertain the value of the so-called antiseptic soaps as to their aseptic and antiseptic properties.

He dissolved in sterilized distilled water the superficial and the inner parts of the soaps separately, and inoculated them into nutritive media (agar-gelatin). Besides he treated the pure cultures of Staphylococcus pyogenes aureus with solutions of the said soaps, with the view of studying the change in the vitality of the micro-organism.

He chose the pyogenes aureus because it is one of the most common and most resistant micro-organisms, and because of the ease with which the morphology may be studied.

He concludes as follows:

1. Sublimated (1 per cent.) soft soap is not aseptic and has not any antiseptic value, even if the experiment lasts for twenty-four hours.
2. Sublimated (1 per cent.) hard soap has very little antiseptic value, as it necessitates a continuous action of twenty-four hours to prevent the development of the pyogenes aureus.
3. Carbolic acid (10 per cent.) soap shows less aseptic properties and no antiseptic action at all.
4. Salicylic acid (3 per cent.) and boric acid (5 per cent.) soaps are aseptic in the true sense of the word. As to their antiseptic value, both have great power (the

boric acid soap being less so), and they prevent the development of the micro-organisms after a few minutes.

Carbolic and bichloride of mercury lose a great amount of their antiseptic power in contact with the compounds of the soaps, so in practice salicylic and boracic soaps are better. But, if not for surgical purposes, i. e., in dermatology, especially when they are used for a long time, all of them may be employed with benefit.

Auto-intoxication Means Self-poisoning.

It is a poisoning of the organism by the products of metabolism when they are present in an excessive amount. (Medical Review of Reviews, Dec., 1897.)

It is easy to conceive of the possibility of the accumulation of auto-intoxicants in the body when we think of the physiological changes that nutritive constituents undergo in their passage through the gastro-intestinal canal, and the fact that the products intermediary between introduction and expulsion are very complicated, and some of them poisonous. Gautier calls these intermediary substances Leucomains, and believes them to be the cause of many pathological conditions.

An attempt at classification has been made that, though open to objections, has been of service, i. e., to differentiate the toxicants developed in the body from those introduced from without. Jaksch, Schwalk, Kobert and Bouchard include under the head of intoxicants all the infectious diseases.

Dr. Haubold considered the subject from the following standpoint: 1. The origin or source of auto-intoxication. 2. The conditions that determine its development. 3. Its manifestations.

Auto-intoxication may have its source in: 1. The skin; the phenomena following severe burns. 2. The lungs; carbondioxide poisoning. 3. The kidneys; uræmic eclampsia. 4. The suprorenal capsules; Addison's disease. 5. The gastro-intestinal canal; constitutional disturbances due to diseases of the stomach and intestines. To this may be added the liver, acute yellow atrophy, icterus, gravis and scholæmia; and the pancreas, diabetes millitus. 6. The thyroid gland; myxœdema cachexia, strumpriva, and possibly Basedow's disease.

The conditions that determine its development do not exist in the body normally. Intoxication of the organism occurs only when the secreting or excreting organs that are also avenues by which noxious substances are thrown off are obstructed or insufficient, or when the nature and quantity of the poisonous substances is such as to constitute itself sufficiently intense to exceed the normal variations.

The symptomatology of auto-intoxication is very complex. The manifestations of auto-intoxication occur in the following organs: The skin; in the form of alterations of color such as anæmia, icterus and bronzing, exanthematous and erythematous eruptions, uticaria and dermatitis. The muscular system, as polymositis. In the digestive tract, as anorexia, vomiting, nausea. eructations, diarrhœa, constipation, gastric and intestinal colic. In the genito-urinary system: in albuminury, hæmaturia, hæmaglobinuria, bile-colored urine, acetonuria, diacetonuria, oxaluria and the presence of various alkaloidal substances. In the central nervous system; as cephalalgia, vertigo, syncope, insomnia, anxiety, stupor, coma, irritability, delirium, restricted spasm and general convulsions, epileptiform seizures, paralysis, and not infrequently hypochondria, melancholia and mania.

The following disturbances are to be considered as secondary to the disturbances of the central nervous system: *a.* Heart; bradycardia, tachycardia and arythmia cordis. *b.* Respiratory system; dyspnœa and its variations as to degree. *c.* Temperature; as the subnormal of impending collapse; and, lastly, the large number of cases in which auto-intoxication is not accompanied by any manifestations in a given part or organ, but has its expression in a general disturbance of metabolism such as chlorosis, pernicious anæmia, leukæmia and the various cachexias.

Mechanical Treatment of Ingrown Toe-Nail.

Dr. Henry Ling Taylor, (Canadian Practitioner,) in a paper on the above subject, defines the condition as an infected and irritated ulceration of the soft parts at the margin of the nail. The causes, he gives as improper shoes, a careless toilet of the nails, or accidental abrasions, which in most situations would prove trivial, but here become readily infected by germs, which thrive wonderfully in the genial warmth, moisture, and darkness of such an ideal incubator as the swathed foot.

Numerous operations are suggested, and that none of them are perfect the large mass of literature on the subject testifies.

Mechanical methods have been tried, such as raising the impinging edge of the nail by inserting bits of gauze or other substance beneath it, scraping the surface of the nail, or by pressing away the granulations by a small and carefully adjusted compress, all with varying degrees of success.

The treatment suggested in the paper is a modification of the method employed by Mr. H. T. Masters, of Whitechurch, England.

A flat strip of silver $\frac{1}{100}$ of an inch thick, one-eighth of an inch wide, and an inch long, is bent by means of small forceps into the shape of a fish-hook.

The hook will fit the toe better if shaped from a strip of metal slightly curved on the flat, and so bent that the shorter edge will be in front. In this case the hooks will be of two kinds, right and left.

The hook is inserted beneath the lateral edge of the nail in such a way as to include it in the barb of the hook, while the shank curves over the side of the toe and presses the granulations back from the nail.

It is advisable to first cleanse the surface of the toe with peroxide of hydrogen, and then apply a pledget of cotton soaked in a 4 per cent. solution of cocaine. A little gauze is applied to absorb discharge, and the hook held in place by a turn or two of gauze bandage.

Spasmodic Croup.

Dr. Meigs says: By the judicious use of an opiate with ipecac, if the case be not so severe as to demand the immediate and somewhat more violent action of an emetic, in my experience the spasm of croup can be better combated than by any other means I have ever tried, and when once a physician and judicious mother have combinedly learned to manage spasmodic croup in this way, the disease, except when it occurs in its most violent forms, loses almost all its horrors in a household. What is to be aimed at in croup is to give such an amount of laudanum as will produce a moderate but decided soporific effect without narcosis, and ipecac, to relax spasm but not nauseate, and especially not to induce emesis. In administering laudanum to any child that has never previously taken it, no one should do otherwise than begin with a minimum dose and this, too, at the risk of failing to thoroughly produce an effect, because the event will prove the dose to have been too small for the particular individual. For a child two years old the initial dose should not be more than two drops of laudanum with ten of ipecac syrup; this to be repeated after an hour, or any time later if necessary. By waiting an hour, a second dose can always, in my experience, be given with entire safety, for if the first has produced no decided effect in that length of time, the second will not produce too much. For an infant of two to six months the first dose, to keep properly within the line of safety, should be half a drop with five or six of ipecac syrup, this to be repeated in an hour if the first be insufficient. In older children the dose must be proportionately larger, and the precise amount to be given is very much a matter of individual judgment, for it is difficult to formulate a precise rule which can be held to in emergency.

Nephritis Due to Malaria.

Placque remarks, says the New York Medical Journal, that malaria in the production of Bright's disease is generally admitted. The importance, however, of this influence has been very variously appreciated, and seems even variable according to the malarial regions. While Rosenstein is of the opinion that paludism causes nearly a quarter—that is twenty-three per cent.—of the cases of nephritis observed in Dantsic, in other regions this action seems to be exercised in a more exceptional manner. It appears generally much more powerful in the paludism of temperature and especially damp and cold countries than that of tropical countries.

The mode of action on the kidneys is easily explained. In the acute symptoms each febrile attack causes an increase of work and congestion of the renal filter. Albumin is frequently present after attacks of a certain intensity, and it becomes the rule in patients with malarial affections of long standing, who have an already overworked kidney, after even slightly intense attacks. It is in similar cases also, and more particularly in certain countries—Madagascar, for instance—that paroxysmal hæmoglobinuria is observed. In addition to the soluble pigments in the blood, the urine is charged with biliary pigments. This form, according to the author, is often followed by nephritis. Often also during the crisis unexpected symptoms of uræmia manifest themselves under the influence of the obstruction of the uriniferous tubules. The epithelium is then infiltrated by pigmentary granulations containing iron. This ferruginous overcharging of the kidney by the decayed blood pigment is also observed in chronic cachexia. All the cells thus infiltrated with iron are blackened by ammonium hydrosulphate. There is shown here a most important and sclerogenous action. The action of Laveran's hæmatozoa and of their toxines has a great influence in the production of these renal lesions.

From an anatomical and clinical point of view, in addition to the acute form of renal obstruction in hæmoglobinuric billious fever, two principal forms should be distinguished. The first is a diffuse inflammatory process ending in progressive sclerosis of the parenchyma. This diffuse inflammation may even take an acute course, and this acute course belongs rather to the first attacks of an intense malarial poisoning. The chronic course with induration and partial atrophy of the gland belongs rather to the prolonged and tenacious forms of paludism. In the second case, the sclerosis is less diffuse; it assumes an annular form connected with the nodular tumefaction of certain portions of the gland. The lesion, instead of being diffuse, may also become localized, in the multiple and independent glandular regions. The course of the lesions may also be either acute or chronic. But, even in the acute form, the clinical evolution remains somewhat slower than in diffuse nephritis.

Clinically, the malarial forms of nephritis present several peculiarities. The acute form, in addition to the usual symptoms of anascarca and uræmia, if often distinguished by the early appearance of cardiac troubles and of the rhinitis of Bright's disease. Attacks of hæmaturia, of hæmoglobinuria, and of icterus are frequent, and death may occur from gangrenous attacks. The chronic form may be extremely insidious. Sometimes it is not until after several attacks of anascarca that albuminuria appears.

The specific treatment of paludism has, unfortunately. no influence on the renal lesions formed. A change of climate is the only efficacious means when it can be employed in the beginning. M. de Brun, however, says the author, has called attention to the good effects of quinine in the transitory albuminuria which is connected with intermittent attacks.

Rumination in Man.

Merycism, or rumination in a human subject, has long been known, and those addicted to the practice are known in France as *merycoles*. A considerable number of cases has been collected, and M. Nattan-Larrier has recently published an instructive memoir on the subject (British Medical Journal). There is no certain evidence as to the influence of sex; certain authorities make out that merycism is most prevalent in the male, but since that opinion has been repeatedly copied in textbooks, Ludwig and several other observers have recorded numerous cases where it occurred in women. According to the independent reports, merycism may be heriditary. Bouchard, of Ghent, has published the clinical history of a ruminating family. Out of ten living members eight ruminated—namely, two brothers and an aunt, the grandfather and four grandchildren. Close scrutiny into individual cases, however, tends to show that merycism may represent an extreme form of mental disease. It may be voluntary or involuntary, the latter type often representing the first stage of what becomes the former. No special change in the chemistry of the saliva and gastric juice has been proved to be associated with merycism, but human reminants are often dyspeptics with sensory-motor phenomena. Involuntary merycism, at least in its earlier stages, is specially prevalent amongst dyspeptics troubled with neuroses. Voluntary rumination, as a bad habit, is a practice observed most frequently amongst idiots, lunatics, and "degenerates," a true intellectual perversion, in fact, where a man wishes to be like a cow. Yet voluntary rumination, on the other hand, may be the result of imitation in fairly sane subjects; on that account it is relatively common amongst children. The mechanism of rumination is the same in man as in animals that naturally ruminate. No malformation or lesion of the stomach or œsophagus has been detected in any case. Treatment to be successful must in every case depend on management of one of the conditions always concomitant with merycism. Hence the dyspeptic ruminant must be treated as a dyspeptic, the neuropathic subject as a neuropath, and these types are found the most satisfactory for treatment. In children the condition is often traceable to imitation. M. Nattan-Farrier holds that the ruminating child must not be spoiled by the sparing of discipline, but believes that suggestion might prove a quicker and more thorough therapeutic agent. It is certain that it would be preferred by the patient. When distinct mental disease is present attempts at cure are seldom successful, and some idiots are very clever in bringing up their food the moment they are no longer watched; they can retain it for hours till they desire its return to the mouth.

Bacillus Coli and Infantile Enteritis.

Lesage, according to the British Medical Journal, has found that in 40 out of 50 cases of infantile diarrhœa due to the B. coli cultures of the bacillus derived from any case were agglutinated by the serum of the patient or of any one of the 39 cases. This is only true during the acute period, for the length of time when this reaction is obtained is short, and agglutination disappears after a few days, which possibly explains its absence in 10 cases. The reaction is wanting in chronic enteritis, and feeble or wanting in an acute exacerbation of a chronic illness. It is therefore an indication of the reaction of the organism against acute intoxication. When the latter is prolonged the organism loses its power to react and the prognosis becomes very grave. The above facts go to show that all the B. coli of infantile enteritis are of the same kind. Thus the various kinds of B. coli of the adult (in dysentery, varieties of diarrhœa, etc.,) are not agglutinated by serum from infants suffering from colibacillary infection, nor by antitoxic serum obtained from a horse immunized by their toxins. This serum reaction is a means of diagnosis more reliable than any chemical test since among the B. coli of infantile enteritis some coagulate milk, others do not; some give the indol reaction, others do not, etc. The most convenient method for diagnostic purposes is to use the antitoxic serum of a horse rendered immune by these varieties of a probably identical bacillus.

Statistics Regarding Imbecility.

Dr. Carl Looft, of Norway, has issued a monograph entitled "Clinical and Etiological Studies on Deficient Mental Development in Children," in which he makes the following statistical assertions: (Pacific Medical Journal.)

1. Out of 328 boys and 249 girls, all of idiotic grade, 20.6 per cent, of the former, and 12.7 per cent. of the latter were epileptic.

2. Epilepsy may not only be a complication of imbecility, but a direct cause as well.

3. There are no endemic cretins in Norway. (!)

4. The thyroid treatment for "Mongolian idiocy" has been of very little, if of any practical benefit.

5. Out of 539 cases of imbeciles and idiots, 17 per cent. had parents who possessed marked abnormal mental conditions; 3.7 per cent. had an alcoholic parentage, and 9.1 per cent. had parents afflicted with tuberculosis. Of this last class nearly all were of the grade known as congenital idiots.

6. From 4 to 5 per cent. of the children examined were twins. Twins and multiple births appear to be quite common in families in which imperfectly developed children are found.

7. 14.9 per cent, of the children examined were afflicted with rickets.

8. Out of 103 cases especially studied, 9.1 per cent. boys and 12 per cent. girls were "mirror writers." In making comparative studies he found that of normal children, 5.7 per cent. boys and 11.1 per cent. girls were mirror writers, but they were among the least robust, the least healthy, and the most irritable of the normal children examined.

These statements of Looft are by no means conclusive. They are valuable, however, for general comparative work. His findings regarding weaklings from parents addicted to inebriety (3.7 per cent.) are directly at variance with the assertions of Dr. Langdon Donn, in his "Mental Affections of Childhood." Dr. Donn has charged that drunkenness in the parents is one of the most prolific causes of idiocy, etc., generally the world around, less specially and markedly so in Norway.

Operative Surgery in Low and High Altitudes.

Dr. C. A. Powers, in the Annals of Surgery, gives a comparison of results of operations performed at New York and in Denver, Col., which is one mile above the sea-level.

Of 248 operations performed at Denver, ether was employed in 159, and chloroform in eighty-nine.

Fifty-four were upon the head and neck.

Thirty-three were upon the chest and trunk.

Thirty-six were upon the abdomen.

Thirty-four were upon the genito-urinary organs.

Nineteen were upon the rectum and anus.

Eleven deaths occurred in the entire series.

Dr. Powers' conclusions were as follows:

1. Operative surgery in dry climates having an altitude of one mile or thereabouts, is to be pursued on the same general lines which govern it at the sea-level.

2. Care must be exercised in subjecting those recently from a lower altitude to severe or prolonged surgical procedure, especially if the patient be a pulmonary invalid, or if he exhibit cardiac weakness.

3. Those who are thoroughly acclimated bear operation rather better when at home than when they go to tide-water.

4. Ether must be employed with greater caution, and is more of an irritant to the respiratory mucous membranes.

5. The loss of blood seems rather less in the high, dry climate.

6. Shock also seems less pronounced; patients rally more quickly after operation.

7. Infection, when it occurs, doubtless makes less progress in a dry atmosphere.

8. It is believed that accumulated statistics will show that operations for surgical tuberculosis are attended by a greater permanency of healing in the high altitudes.

Milk Diet.

The Editor of the "Hospital", Dec. 11, 1897, points out the well known curative effects of milk diet in many obscure affections. In cases of diarrhœa, in cases of ulcer of the stomach, in many cases of innutrition, in some of diabetes, and in plenty of cases of Bright's disease, "milk cures" and "whey cures" have long been used with considerable effect. The milk, however, has mostly been given in such cases for purely empirical reasons. It has been looked upon as a "bland" and soothing diet, notwithstanding the very obvious fact that it often eventuates in the production of hard and massive feces which appear anything but unirritating. Dr. George Thin is probably right when he suggests that it is not the milk that cures, but the other foods that poison by the abnormal fermentation which they undergo; that it is not the giving of the milk but the withholding of the other food that does the good. In his book on "Psilosis" he has shown how it has happened again and again that patients suffering from that curious disease, who have been doing well on exclusively milk diet for weeks, have experienced a severe relapse so soon as a raw or lightly boiled egg has been taken, or a cupful of arrowroot has been given; and he infers that in such cases this result is not from any mechanical irritation (which, in fact, could not have been produced by such substances) but has been caused by these substances constituting pabulum for the development of some form of fermentation which does not occur when milk alone is given. Such an idea derives considerable support from the apparently evil effects which are in some cases seen to follow the use of even a small and apparently insignificant amount of starchy food in cases of rickets. Perhaps the absence of such fermentation in individual cases may also account for the not very uncommon instances in which children have escaped rickets, even though they have been known to partake of starchy foods in considerable quantity. it being not the starch but the fermentation it undergoes in some cases that brews the poison.

The bearing of this point on cases of anæmia and innutrition is of very considerable importance. The well known views of the late Sir Andrew Clark as to the toxic origin of many cases of anemia in young women—namely, that they are due to the absorption of some sort of poisonous product resulting from functional derangement of the intestinal canal, and that they should be treated by purgatives—all bear in the same direction, as also does the occurrence of optic neuritis, possibly a mere toxic neuritis, in chlorotic subjects. If all this is granted a good deal follows, and it becomes clear that in the treatment of various conditions of debility and innutrition, milk has its true use, not as an extra article of diet, not as a supplement to an already plentiful regimen, but as a means of knocking off the other things. In some of Dr. Thin's cases nutrition began to improve under comparatively small quantities of milk, although they had been failing under a far more "nutritious" diet. This is certainly in accord with experience gained in the treatment of infantile diseases, and the moral is, that if we would gain the full advantage of milk diet in a case of, maybe, obscure disease, the treatment must be milk and nothing else until the experiment has been fairly tried.

Pneumonia.

Tyson (Lancet) states that though the various types of pneumonia are pathologically almost identical, yet clinically they can be distinguished, and it is important so to do on account of their differing prognosis and treatment. The following kinds certainly exist:

Pneumonia of influenza.—In this form the consolidation is not, as a rule, confined to one lobe; it begins in small patches which coalesce. Often both lungs are involved. The signs of bronchial breathing and bronchophony are not well marked, but crepitant 'rales' are prominent. The cough is troublesome, and the sputum, which is often profuse, does not possess the ordinary stickiness and rusty color.

Septic pneumonia.—The cause is not always easy to discover, though occasionally it may follow what is evidently a septic disease—*e. g.*, erysipelas. The consolidation is patchy; and, whilst one patch is clearing up another may be appearing elsewhere. The physical signs are not well marked. The temperature follows a septic course, and the general appearance of the patient is one of blood poisoning. There is no sputum; the disease is chronic in its course, and fatal in prognosis.

Epidemic pneumonia.—There is a rapid rise in temperature, and the constitutional disturbance is out of all proportion to the evidence of local pulmonary disease. Relapse is common, mortality is high. Convalescence usually begins by crisis on the seventh day. The disease appears to be a constitutional infection--a pneumonic fever.

Typhoid or asthenic pneumonia comes on in diseased conditions. The pneumonia begins gradually and is never sharply defined, and is consequently frequently overlooked. The symptoms of rigor, pain, and rusty sputum are absent, and there appears to be no crisis.

The pneumonia of the aged differs from the preceding types. It comes on insidiously, and is accompanied by a general body weakness which may overshadow the lung mischief. The temperature is but little varied, often not above 100 degrees to 101 degrees F. The physical signs of dulness, bronchial breathing, and crepitation are all present. The prognosis is bad. In alcoholic pneumonia it is the delirium which is the prominent symptom, whilst the temperature is not high, and the expectoration is profuse and dirty in color. The prognosis is bad.

The Negative Action of Sewer Air in Raising the Toxicity of Lowly Virulent Diphtheria Bacilli.

At the Pathological Society of London, December 7, 1897, Dr. Shattuck (British Medical Journal) remarked that it had at different times been surmised that some causal relationship subsisted between defective drainage and outbreaks of diphtheria —that is, that the inhalation of sewer air determined the occurrence of diphtheria. By some it had been thought enough in refutation of such a view to point out that the diphtheria bacillus could not be conveyed in sewer air, seeing that bacilli are not disengaged by evaporation from the fluids in which they are growing. What was conceivable, however, was that a non-virulent diphtheria bacillus, such as was present in the throat of many individuals, might, in consequence of the inhalation of sewer air, regain its virulence and become the cause of a diphtheritic lesion, which except for this factor would not have arisen. Having for some time had this possibility in mind, the author had put it to the test; and, although the results were negative, they might be of interest, though he did not think that they exhausted this question, but only eliminated one of its possible answers. Two diphtheria bacilli were tested; they were derived from cultures made by Dr. F. W. Andrewes, who had examined them with Prof. Kanthack and they presented the morphological characters of diphtheria bacilli, although upon guinea pigs their subcutaneous injection was followed by local swelling only. The author had, moreover, tested them on one per cent glucose broth, to which they imparted in 24 hours a characteristic acid reaction. The cases from which they came presented clinically the signs of ordinary sore throat. Before commencing the experiment the author had for several days carried the bacilli from broth tube to broth tube (prepared from fermented veal) in order that any toxicity they possessed might be raised to its acme. When tested upon guinea pigs they were found to be still non-virulent. The method of experiment consisted in growing the bacilli in Duclaux flasks of broth, over the surface of which medium sewer air was continuously and slowly by means of a water pump. The flasks were renewed about every three days for several weeks, the inoculation being made from each pair to its successors. At the outset the author had been foiled by the impossibility of obtaining sewer air. The main sewer by the side of the Conjoint Laboratories (where the investigation was carried out) was tapped, and the air in it drawn up to the hot room where the flasks were kept, through a leaden pipe after careful sealing at all points, but no foulness was perceptible in two empty flasks used for the test; the sewer in short was so well ventilated that no "sewer air" could be got from it. It was necessary, therefore, to improvise a badly-drained sewer, and this was done by drawing air over sewage stored in two tanks, and afterwards through sewage in a capacious Wolff's bottle in the hot room itself. The tube from the latter was conducted to the Duclaux flasks. From time to time fæces were added to the sewage, so that a continuous supply of fecal air was obtained. This addition had the effect of considerably retarding the growth of the bacilli for some days. One bacillus was cultivated in this manner for two months, the other for five weeks. From the final flask in each case, after growth was pronounced, a test tube of broth was inoculated, and twenty-four hours later the culture in the tube was tested by means of two c. cm. injections given subcutaneously to guinea pigs. The bacillus had remained non-virulent.

Dr. Edward B. Jackson, of Houston, Texas, desires a young physician partner—must be energetic and sober. Write or call for particulars.

Animal Diseases Communicated to Man.

Dr. Charles Gresswell (Colorado Medical Journal) in discussing the results of the late researches into this subject concludes as follows:

1. Koch claims to have established the unity of the tubercle bacillus in all animals including man, but Maffuci claims a difference exists between that of mammals and birds, that of the latter being less virulent than the former. Kruse gives the history of four varieties, and Pansini concludes that transition forms exist. Experimental research so far has not established sufficient differentiation of the tubercle bacillus, (in spite of its well known character of being highly specialized towards an intra-cellular existence as a parasitic organism), as to lead to the hope that it cannot take root in all mammals alike under similar conditions.

Other microbes, such as that of Texas fever, are so specialized as to be harmless to other animals than cattle, and it may be that that of tubercle will prove to be of a varying degree of virulence as between animals and man, but at present we must accept the conclusions of Koch.

2. The raw milk of tuberculous cattle, even if the disease is localized, and not general, will communicate the disease to all other susceptible mammals. The flesh of tuberculous *cattle* is contagious when the disease is general, not when localized. The flesh of tuberculous *swine* is infective generally, on account of the greater liability in the hog to general tuberculosis. Both milk and flesh of both is harmless if properly cooked, boiled or sterilized.

3. Many thousands of illustrations are now on record proving that the tuberculin test is extremely accurate in diagnosis of even the slightest presence of tuberculosis; and that it is harmless to healthy animals.

4. Although the conditions of susceptibility are hereditary, the young of tuberculous animals are born free from the disease, and can be raised apart from their mothers without necessary contraction of the disease.

5. Susceptibility is much increased by inbreeding or intense breeding from varieties for one result, by close confinement, by impure air, and by any condition or sets of conditions which lower the general vitality of the system.

6. Where conditions exist tending to increased susceptibility, the germ itself increases in its contagious virulence as it spreads from one animal to another of those under such conditions, and this to such an extent that an ordinarily immune animal is likely to succumb when brought into immediate contact, with the germ so increased in virulence.

7. The susceptibility of inbred stock can be remedied by suitable outcrossing, and the same is true, but less marked, of intensely bred animals.

8. A system of semi-annual tests with tuberculin, isolation of affected animals to be kept for breeding purposes only, condemnation of all showing physical signs of the disease, strict attention to improved sanitary conditions, and methods of breeding, has been found effectual in stamping out the disease among cattle.

9. Considering the great susceptibility of so many of the human family by reason of their faulty environments, and in healthy men immediately after recovery from other germ diseases, and in children generally after attacks of the infantile fevers of nutrition, all milk derived from dairies which have not been submitted to the tuberculin test, should be sterilized, or boiled, and all meat from animals with general tuberculosis should be condemned.

10. It is a grave question as to how far the expense of the tuberculin test, and that of the occasional condemnation, should fall upon the dairy owner, or upon the public; for it is hardly fair that a higher standard of purity of food products should be expected from the milk vendor than from the butcher who sells ptomaines with his meat; the saloon keeper who sells fusel oil with his whiskey; or from the druggist who vends unknown patent medicines for the cure of unknown diseases, all of whom may be said to be equally guilty of occasionally poisoning the public, as the dairyman who unwittingly sells the seeds of consumption with his milk.

Hemostasis in Cases of Uterine Fibroids.

That thyroid medication has already proved an important addition to the treatment of some diseases, is evinced by the large and steadily increasing literature. Its value in obesity and myxœdema and goitre, has been established peradventure; its employment in other conditions is still tentative. Sufficient experience has not yet been collected to determine its utility in the treatment of uterine fibroids to which attention has been called by Prof. Polk of New York. In a preliminary note Dr. Lutaud of Paris (Jour. de Med. deParis) has shown that iodothyrine, the active principle of the thyroid gland, is an excellent hemostatic in cases of fibroids of the uterus, although his observations have not been numerous enough to enable him to determine its effects as regards the reduction in size of these tumors. The following case, taken from his article will serve to illustrate its action :

"The patient was 47 years old; she had a very large fibrous tumor almost the size of a fœtus at term. She had undergone various forms of electrolytic treatment without result. The metrorrhagia was very profuse, obliging her to stay in bed for 16 to 20 days each month. I used iodothyrine in doses of 1 gramme for twelve days, and then raised it to 2 grammes without noticing any accident due to tolerance. The treatment was suspended after the menstruation which was less profuse than usual. After eight days of rest, the administration was resumed in daily doses of 2 grammes for twenty days. The patient was, therefore, under the treatment for two months, except for the intermission of eight days. The results were satisfactory. The fibroma which extended above the umbilicus had diminished in volume, and no longer caused the fatigue which was previously felt in walking. The patient felt relieved. But what seems remarkable was the diminution in the metrorrhagia. I was only able to observe two periods, but the hemostatic action of iodothyrine was manifest. The patient was able to be up during her period, which she had not been able to do for several years.

Osteo-Arthritis Caused by Pneumonia.

Artheritis, due to the presence of pneumococci in the joints, is now one of the recognised complications of pneumonia. At a recent meeting of the Société Médical des Hôpitaux of Paris Dr. Fernet called attention to a peculiar form which differed entirely from the ordinary and purely articular. (Lancet, Dec. 11, 1897.) Only two cases had been observed and the sternoclavicular joint was attacked in both. The onset was sudden and attended with severe pain, considerable swelling soon followed, but redness was slight or absent. The swelling was not due to effusion into the joints (as demonstrated by puncture,) but to œdema of the peri-articular cellular tissue. The articular surface were rapidly eroded, so that crepitus like that of a fracture was soon felt, as early as the thirteenth day in one case. Dr. Fernet regarded this sign as characteristic. The duration of the disease was long because fibrous ankylosis, the natural termination, took some time to develop. In one case it was more than two months. The treatment followed was immobilisation of the joint. The other case terminated fatally at the end of three weeks. A necropsy was made. The peri-articular cellular tissue was infilterated with serum; the muscles looked uneven and pale and showed purulent striæ; the ligaments and cartilage were completely destroyed: the articular surfaces were represented by rugged surfaces of spongy bone. There was no effusion in the joint and a few drops of serous fluid were obtained with difficulty which yielded pure cultures of pneumococcus. In this case there was also pulmonary and meningeal infection. Dr. Fernet called attention to the analogy of the osseous to those observed in the arthropathies of locomotor ataxia both in their nature and clinical evolution and suggested that possibly the latter was also due to a microbial cause favoured perhaps by trophic defects.

Animal Tuberculosis---Its Relation to Human Tuberculosis---Suggestions for Its Management.

Dr. Kinsman, in a paper he read before the Ohio State Medical Society last May, summerised it as follows :

1. Tuberculosis in men and animals is due to one and the same cause, and is reciprocally communicable by inhalation, ingestion and inoculation.

2. It can be limited by the same measures which have been found effectual in other microbic diseases.

3. The disease is much more infectious among animals than in men. This is especially true of cattle.

4. Statistics in Europe and America show that tuberculosis is rapidly increasing among our herds of horned cattler

5. Danger of infection of the human family by these infected herds will thus be increased.

Statistics of Massachusetts are said to show that the mortality in that state from consumption in 1848 was 41.7 per 10,000 population; in 1893 it was 22.7, a diminution of nearly 50 per cent. This is due to better sanitation, but this rate of mortality, which is about the same as it is in Ohio from consumption, proves that this is the most fatal disease which affects humanity.

No epidemic has ever been so fatal as consumption in modern times. The mortality from all the contagious diseases reportable by law does not equal that caused by tuberculosis. We have no cure yet for internal tuberculosis. We can only prevent. We must suppress all sources of infection as far as can be done. More important to humanity than any other work which can engaged our attention is the suppression of tuberculosis.

An Outrageous Offence.

We take the following item of news from Practical Medicine, and it is certainly worth reading:

The regular attending physicians, and the whole board of managers of Bellevue Hospital, are in a state of moral paralysis over the undescribable offense of one of the bright young physicians of the house staff. Shocking to relate, he "up and kissed" one of the nurses! And, more shocking still, the nurse "up and told" of it. From centre to circumference the old building is shaken, until the late marriage and speedy divorce of the College and University are all but forgotten. The doctor certainly shows very little judgment, not enough to warrant his going out into the cold world and struggle for an existence; for had he been better endowed in this respect he would have chosen one of the gentle-stepping, spotless-aproned and white-capped messengers who would not have told, "No, not for the whole world!" Doctors should never kiss their sweethearts, or supposed sweethearts; their wives or children, nor their pastor, nor their pastor's wife or children. Kissing is unwholesome, useless, and of transitory existence. "Recent laboratory experiments, and testimonials from our leading physicians" declare it to be positively dangerous. We desire to call attention of the W. C. T. U. and allied organizations to the case of this most extraordinary professional nurse, and would suggest that a monument be at once erected to her memory, for she will certainly be soon translated out of this wicked, wicked world!

Cantharides in Infectious Nephritis.

Antoinette Myszynska gives an account of experiments with tincture of cantharides in the treatment of ten cases of epithelial nephritis. (N. Y. Medical Journal.) It was administered in doses of from six to eleven drops in a glass of milk. The patients were first put upon a milk diet, and then on the ordinary hospital diet, a condition which conduced to a better appreciation of the effects of the tincture on diuresis and on albuminuria. The results were as follows: Rapid and complete recovery from a persistent albuminuria occurred in a malarial subject; recovery from an excessive albuminuria that had resisted all other treatment for seventeen months, in a tuberculous subject, with improvement in the general condition add fibrous cicatrization of the lesions of the third degree; improvement in three cases, interrupted by the departure of the patients against the advice of the physician; and, finally, negative results in five cases.

In eight of the ten cases (all but those of lead poisoning) cantharides manifestly and rapidly increased the amount of the urine, and this increase persisted after the cessation of the drug and the suppression of milk in the patients' diet.

A new point observed was that the tincture being administered in all cases at first with the absolute milk diet and afterward with a mixed diet, the proportion of albumin decreased in spite of the suppression of the milk, and diuresis remained abundant.

Without exception, a marked increase of appetite was observed in the patients. In one case the drug seemed to have a peculiarly salutary and unexpected influence on the general condition of the patient.

The author concludes that, as the tincture of cantharides is a remarkable diuretic and a valuable means of decreasing the degree of albuminuria in young subjects suffering from epithelial nephritis, it will be useful to continue its employment in similar cases, in doses of from four to twelve drops in a glass of milk; its use should, however, be suspended on the least symptom of intolerance, and resumed after a time in progressive doses.

M. Du Cazal insists particularly upon the necessity of repeated doses of the tincture after short intervals of rest, if the drug has not shown itself efficacious the first time, and he cites favorable instances in support of this statement.

Microscopic Examination of Milk.

Drs. Stokes and Wegeforth, in the Medical News, report an extended series of observations made to determine the value of microscopical examinations of milk, from which they conclude that garget, or inflammation of the udder and teats, is a not unfrequent condition among the many herds supplying milk to various cities or communities.

Milk from such animals often contains many pus cells, and the accompanying organisms of suppuration.

The study of an epidemic described by them, as well as the important work of Booker and others, certainly strongly suggests that such milk is capable of causing the various forms of gastro-enteritis, especially in children and infants.

The microscopic examinations of the centrifugalized sediment of the milk from a herd of cattle if found to contain an excessive amount of pus, should suggest a careful inspection of the herd.

The chance of infection from drinking milk from a large herd can be lessened by making a microscopic examination of the centrifugalized specimen from each cow, and by the exclusion of such cows from the herd as may be found to contain an excessive amount of pus in their milk.

The standard for exclusion must of necessity be arbitrary, but following the methods above described, an average of more than five pus cells to the field of the oil immersion lens should exclude an animal from the herd.

Endemic Typhoid.

The experimental investigations as to the etiology of endemic typhoid described by Sir Richard Thorne at the last meeting of the Royal Medical and Chirurgical Society are of great interest and importance, showing, as they do, how extensively the typhoid organism may grow and how long it may persist when once implanted in organically polluted soil. (The Hospital, Dec. 11, '97.) These investigations explain much that has hitherto been a matter of guess work, and express in accurate terms of bacteriology a great deal that has so far been a matter of faith rather than of understanding.

Popular interest in typhoid fever seems to hinge almost entirely on its epidemics. There is something dramatic and sensational in a city being struck as in a night by a disease which in a short time lays low almost a tenth of its inhabitants. Still, all this is a mere matter of mechanical distribution. What is of real scientific interest is the question, Where does the microbe live; where does it maintain its existence month after month and year after year; and whence does it come when it causes the sporadic outbreaks—a case here and a case there dotted over the country—by which the disease shows itself when its distribution is not assisted by such modern appliances as water-pipes and drains?

It used it to be maintained that typhoid fever sprang from foul emanations, and that it could be generated anew by decomposition of sewage and animal filth. This view was ably maintained by the late Dr. Murchison, and would, no doubt, have held its own but for the striking facts afforded by various water epidemics, which showed how strict was the relationship between the spread of the disease and the specific infection of the water by some pre-existing case. The fact is, that when it was once proved that the infective material was a specific germ the notion that mere filthy surroundings were capable of setting up the disease seemed to be knocked on the head. Some source of infection was, therefore, looked for in each group of cases. In great epidemics this was often not very difficult of discovery by skilled investigators; but in sporadic country outbreaks the most careful search for the source of the infection has again and again proved fruitless, and thus the doctrine of the pythogenic or filth origin of typhoid fever has never been entirely without followers among clinical observers. Thus, curiously enough, it happened that this fever, which in the outbreaks connected with water and milk supply has furnished some of the very best examples of a zymotic or germ-spread malady, has also in regard to certain country outbreaks remained the greatest stumbling-block in the way of the general acceptance of the germ theory of infectious diseases.

What Sir Richard Thorne told to the meeting, however, was this: That as the result of experiments undertaken on behalf of the Medical Department of the Local Government Board by Dr. Sidney Martin, it had been found that when organically polluted soil, derived from localities where typhoid fever was wont to recrudescence from time to time, was inoculated with the typhoid bacillus, this organism not only retained its vitality, but grew, and in some cases permeated the whole mass of the soil experimented on, and that in such soils the typhoid bacillus had retained its power of growth for so long a period as nine months. There was, in fact, no reason to believe that the limit of its vitality in such soils had yet been nearly reached. When, however, it was grown under similar laboratory conditions in virgin soils collected at a distance from human habitation no trace whatever could be found later than 23 days after the inoculation. Such soil, in fact, was found to be quickly destructive to the organism. We seem here to see an explanation of the origin of endemic typhoid which fits in with all the facts. When typhoid is imported into a place with clean surroundings, and a clean soil, however virulent it may be, it soon dies out. Where, on the other hand, the soil is polluted with decomposing organic, and especially animal matter, the typhoid organism takes root and not only grows but persists, so that whenever the temperature rises to the proper heat and the soil is moistened to the proper degree a great development of the typhoid bacilli takes place, and these, washed into wells or streams from which drinking water is drawn, again gain access to man and thus at last give rise to cases of typhoid fever, the origin of which no one can trace, so long is it since the infection was planted in the soil. This is the view that has been held by many as a theory for some time, and it is extremely satisfactory to find it working out true, as we have said, in terms of bacteriology when it is put to the experimental test in the laboratory, for it explains much.

Fifteen Consecutive Cases of Intussusception.

Mr. Barker at the Clinical Society of London (British Medical Journal) observed that the treatment of these cases was at present difficult to decide, and he brought forward certain conclusions which appeared to him to be justified by his experience of fifteen consecutive cases. Intussusception, he observed, was a condition which, if not early relieved, tended to a promptly fatal termination. It was, however, impossible to ascertain with certainty in any given case whether the critical point had been reached. Experience had, however, shown that within thirty hours a hopeless condition of strangulation might be reached; while in other cases the bowel might remain viable for many days. The views of individual practitioners would vary according as they happened to have met with most of one or the other classes of cases. It would be just as wrong to say that laparotomy was the only treatment for acute intussusception as to urge that injection was suitable for all cases. Some yielded readily to injection, while others were not, and could not be amenable to such treatment. When the invagination commenced in the small intestine, above the ileo-cæcal valve, it was evident that it could not be reached by distension of the bowel from below. Leichtenstein's statistics showed about 30 per cent. of enteric intussusceptions, and 8 per cent. of ileo-colic, so that 38 per cent. of all intussusceptions were essentially unsuitable for treatment by distension. Of the remaining 62 per cent., including 44 per cent. ileo-cæcal and 18 per cent. of colic, though theoretically amenable to the distension treatment, as a matter of fact a very large proportion were not brought until œdema and firm strangulation had rendered the walls of the bowel quite unyielding. Then, too, the invagination sometimes apparently yielded to injection, and the bowel uncoiled itself up to the point where invagination began, but no further. Consequently, when the distending force was withdrawn, the invagination resumed; in fact, there had not been perfect reduction. In such cases, they must be on the lookout for a return of the tumor, even before a return of the symptoms, and in such event it behooved them to operate at once. In his fifteen cases of acute intussusception, this apparent reduction was illustrated in five, in four of which he had afterward to do laparotomy. Injection failed absolutely in three other cases, in addition to the above. It was plain, therefore, that of these fifteen cases, injection failed in eight; but subsequent events showed that of the fifteen, no fewer than twelve could not possibly have been reduced by injection when first seen, so that only one in five of the whole series had the slightest chance of being relieved by injection. Considering that there were 38 per cent. of ileo-colic and enteric intussusceptions not amenable to injection, and in view of the fact that eight out of fifteen treated by injection proved failures, the chance of success by this method of treatment would seem to be small indeed. He concluded, therefore, that except in the rare instances in which they saw the patient within a few hours of the onset of the symptoms, it was safest not to employ injections, but to proceed at once to abdominal section.

Abortive Treatment of Influenza with Calomel.

The American Medico-Surgical Bulletin says that Freudenthal claims to have discovered in calomel a true, absolute, and unfailing specific for the treatment of influenza.

The author has employed it during the last five years, and with invariable success. The only *sine qua non* is that it must be administered on the first or second day, but not later than the third day, as then its specific abortive treatment is lost. The calomel is given in doses of from 1 to 1½ grn.; to children in doses of 1 ctg. (1-6 grn.) for each year of the age. Two or three doses always suffice to produce the favorable effects, which consist in a diminution of the temperature (six to ten hours after the taking of the calomel), and in a relief or total disappearance of the headache and pains in the back. The entire course of the disease becomes milder and shorter. In a statistical table of thirty-two cases, the average duration was three days. That the epidemic was not of a mild type, or that the cases are not selected ones, the severity of the initial symptoms, the temperature of 105-106 deg. F., the severe cough, hallucinations. etc., prove conclusively. In many cases the calomel was the only medication needed, in others mild antipyretics and diaphoretics were added.

The author does not say exactly how the calomel acts, but offers the following hypothesis, which seems to him very probable. The influenza bacilli are at first situated in the upper portion of the respiratory tract, in the tonsils, pharynx, etc., and become destroyed by the corrosive sublimate, into which the calomel is supposed to become converted. The reason the calomel has no abortive action after the third day is because at that time the toxins generated by the bacilli are already in the general circulation

Refraction and Glycosuria.

A writer in the Lancet editorially comments upon Dr. Risley's notes of two cases of Diabetes in which diminution of the glycosuria was attended with a curious result —loss of refractile power and vice versa: Thus in a man whose urine was of the specific gravity of 1050, the glycosuria and thirst disappeared under nitrate of uranium and his general health improved. But his vision grew rapidly worse and it required an addition of 4 D. to restore it to normal. The glycosuri reappeared and the refraction was again increased so that his glasses had to be reduced by the 4 D. Dr. Risley endeavored to explain these changes of refraction by the theory that the indices of refraction of the media of the eye were affected by the sugar or other elements.

In the New York Medical Journal Dr. C. Prentice has discussed the question. He rightly points out as an objection to this theory that an opposite result should be expected—a lower state of refraction with a higher specific gravity of the urine and vice versa. He suggests that the low refractive state was induced by a cessation of ciliary innervation (from what cause he does not state), and that with this there was depression of the renal nerve centres, to irritation of which the glycosuria was due. He states that for some years he has followed the practice of lowering ciliary innervation by over-correction with stronger convex lenses and prisms than are required for vision in cases of diabetes, and thereby has produced diminution & even disappearance of glycosuria, of thirst, and of polyuria.

Dr. Risley's observations bear the stamp of accuracy and deserve investigation. But what shall we say of Dr. Prentice's theory? If glycosuria is ever caused by disturbance of any particular centre it is the hepatic and not the renal. There is no proof whatever that such disturbance is an irritation. But granting so much, we must now make another, and almost incredible assumption—that diminution of the action of the ciliary centre, produced by wearing a pair of spectacles, could so profoundly modify this glycosuria centre as to restore it to its integrity. Finally in Dr. Risley's cases there was no over-correction of vision to start this wonderful process. But let us not be too severe, for are not other branches of medicine permeated by these nerve centre explanations which are only assumptions?

Treatment of Whooping Cough.

Theodor (The Journal of Laryngology) has tried most of the treatments recommended, and amongst others "vaccination," as recommended by Pestalozza. He has not seen the slightest benefit from this, even in previously unvaccinated children. He has applied the treatment in ten cases, four of whom were previously unvaccinated, then gave it up.

His own treatment consists in very carefully treating any catarrhal condition present, keeping the children in the house till all catarrh is gone, and even then allowing them out only in fine weather. In the house they must have two rooms; while one is occupied the other is ventilated, and every now and again thoroughly cleaned out with a five per cent. to ten per cent. carbolic solution. Temperature of both rooms, food, etc., must all be carefully regulated. As an aid to this treatment he gives antipyrin to children under one year, momoform to those over one year, and carbolic masks (ten per cent. to twenty per cent. solution) to those over two to three years.

Some of the Duties of the Family Physician.

The Archives of Pediatrics editorially suggest that the duties of the family physician are limited neither to attendance upon the acutely ill, nor to the administration of drugs. He is frequently called upon to take the charge of delicate children suffering from no distinct morbid condition, whose management involves advice rather than prescribing. In their management every source of irritation and depression must be sought and removed. The general practitioner has, moreover, a certain number of families in his clientele to whom he is called with frequency and who come to look upon him as an adviser and friend. In such cases a certain peculiar responsibility devolves upon him and he is not doing his whole duty by simple attendance during illness. He is to a certain degree the keeper of the health of all his families, but there are certain ones in the practice of every physician in which this is particularly true.

He has an especial duty toward the children of his families during their whole period of growth and development. If they are frail, or the subjects of some diathesis, it should be his duty to counsel with the parents regarding them and not infrequently to offer medical advice and even treatment without special request. It should, in fact, be his duty to see that such children do not run into preventable dangers—dangers of which the parents know nothing and therefore cannot foresee.

Among the subjects upon which the doctor's advice may thus be appropriately offered is the question of games and amusements. A child's life is centred so largely in his playthings and amusements that they may become matters of grave importance, worthy of thoughtful consideration and by no means below the dignity of the physician. Feeble and puny children are frequently made ill, and are kept in a fretful condition by injudicious amusements. Even strong and healthy ones may be rendered irritable by over-exciting games or prolonged and exhausting play.

Isolation in Scarlet Fever Unnecessary and Inexpedient.

Wigglesworth, according to the Lancet, administers to all his patients, as soon as scarlet fever is suspected or diagnosed, from one to six grains of carbolic acid (according to the age) freely diluted with water, repeating this dose every two hours until the rash has finally disappeared. From this period the dose is gradually reduced as to size and frequency until convalescence is established. He has practiced this treatment for over sixteen years.

He further says that all the patients seen in the initial stage of the disease recovered, that he has had but three cases of albuminuria, of mild type, and only one case of glandular suppuration, and that all the usual sequelæ have been characteristically absent. All patients have recovered in a remarkably short time, and with but little loss of strength.

In addition to his results in persons infected he has, as a routine practice, administered prophylactic doses to the other members of the family, and thereafter allowed the freest communication between the attendants in the sick room and the other inmates of the household but not allowing uninfected children to enter the sick room. In the majority, the various households escaped infection altogether; those who were attacked, without a single exception, were infected in a milder form, and in only one instance did a sequel occur. After disinfection no other cases arose unless imported from a fresh source.

He concludes from this experience that the carbolic acid has an attenuating action upon the scarlet fever organism, as it has been shown to have upon other forms of bacteria. He cites a number of cases showing the effect of this line of treatment. He relates the case of a family in which there were two children, a boy and a girl. The boy took scarlet fever, and was carbolized (given sufficient carbolic acid to cause a decided discoloration of the urine); when desquamation was completed, the house was disinfected. The girl was semi-carbolized, and did not come into contact with her brother until after his complete recovery. Some time afterward she contracted scarlet fever at school, became suddenly, violently ill, and died a few hours after being first seen. This experience led the author to consider the advisability of exposing the healthy children in the household to the infected patients after the latter had been fully carbolized, thereby subjecting the healthy ones to the infection in an attenuated form, which would in all probability cause an infection of a milder type, thus protecting them against a future infection of a more severe type.

The Antitoxin Treatment of Diphtheria.

The International Medical Magazine for December publishes some words from the Imperial Board of Health in Berlin which gives some very interesting statistics concerning the antitoxin treatment of diphtheria. While, in conclusion, the compiler of the great array of figures feels justified in calling this much discussed treatment a distinct progress in therapeutics, we leave it to our readers to judge for themselves. The reports gathered by Dr. Diendonne from April 1895 to March 1896 were furnished by 258 physicians from 204 insitutions. Of 9581 cases of diphtheria treated with antitoxin, 1489 proved fatal, or 15½ per cent. After deducting the absolutely hopeless cases, which perished within the first 12 hours after they were seen, the mortality is reduced to 14 and 7-10ths per cent. Adding to these, 9581 cases the result of a former report (January to April 1895) and 1328 cases from March to July 1896, published later, a total of 13,137 cases, divided over eighteen months furnished a mortality of 2,082, or 15 8-10ths per cent. Of the 9,581 cases, there were noted as severe 4,642, or 48½ per cent., of the latter nearly one-half (29 4-10th per cent.) died. The number of mild cases was 3,059 (31 9-40ths per cent.) with a mortality of 0.49 per cent. Four thousand and eighty-five patients, or 42.6 per cent., presented the laryngeal variety, 2744 of which were operated upon (tracheotomy or intubation). Those show a mortality of 35 and 3-10ths per cent. The early treatment with antitoxin gave the most favorable result. Thus, the mortality of cases treated on the first day was 6.6 per cent., that of those treated on the second day was 8.3 per cent., of those treated on the third day was 12.9 per cent., of those treated on the fourth day was 17 per cent., and of those treated on the fifth day was 23.2 per cent. Sudden deaths or severe effects of the injection did not occur, and it is claimed that in a number of laryngeal cases operation was rendered unecessary by the prompt and decided effect of the antitoxin.

The Etiology of Appendicitis.

The theory of Dieulafoy as to the part played by the "shut sac" in the matter of appendicitis has received confirmation by MM. Hatmann and Mignot. They cited the case of a boy, aged sixteen years, upon whom laparotomy in the iliac region had been performed for an appendicular abscess. Three months later he was seized with violent abdominal pain and constant vomiting and the appendix was accordingly removed. This organ which was coiled upon itself, was found to have at its extremity a very minute opening, while at the level of the upper third with the two lower thirds the canal for the space of half a centimetre was obliterated and converted into a fibrous cord. Microscopic sections taken at this level presented no trace of any canal. Two cultures were made with the mucus from the two portions—the obliterated and the patent—and the first was found to contain colon bacilli of a far more virulent quality than those present in the other portion—i. e. that above the obliteration. This is the first demonstration that has been made of such increase of virulence. MM. Dieulafoy and Caussared have repeated their experiments and reported identical results. They brought forward the case of an obliterative acute appendicitis in which the closed portion of the appendix was absolutely shut off from the free portion of the appendicular canal. Two bouillon cultures were prepared, the one with fluid taken from the free portion of the canal, the other with a like quantity from the shut off portion, and both cultures were found to contain quantities of the colon bacillus. Twelve guinea pigs, of equal weights, were then inoculated, six with culture No. 1 and six with culture No. 2. These latter all died while the former remain in perfect health. Moreover, appendicitis is not merely an infection but an intoxication. When guinea-pigs were injected not with the culture as a whole but with the filtrate from them, those injected with the filtrate from No. 1 remained well, but out of three guinea pigs injected with the filtrate from No. 2 two died with all the symptoms of toxic poisoning. Appendicitis is, then, a toxic infection.

Forceps-rotation in Occipito-posterior Positions of the Vertex.

Gillespie states in the Atlanta Medical and Surgical Journal, that in dealing with this subject the rule laid down by Simpson should be followed, i. e. : In occiput posterior positions the mechanism of extraction of the head with forceps should be an exact imitation of the mechanism of the expulsion of the head by nature. When progress ceases, flexion being perfect, and nature does not seem able to rectify the position without exhaustion, it is the duty of the accoucheur to render assistance. The head should always be grasped by its biparietal diameter when possible. This is easily accomplished with the head low in the pelvis, but when high in the cavity it is sometimes impossible. If the head has become wedged in the cavity of the pelvis and cannot be dislodged with the hand or vectis, it is wiser to rotate with the forceps than run the risks of slipping and posterior rotation from violent traction and compression. If compelled to grasp the head irregularly, the operator should recognize the fact that the hold is necessarily insecure and that traction should be made with great care to avoid slipping of the instruments. Furthermore, if the handles be forcibly compressed in order to retain the grasp necessary for forcible traction, there is danger of posterior rotation of the occiput. The principal objection given by writers on obstetrics, as far as the child is concerned, is danger of fatally twisting the spinal cord. When the large number of cases delivered in this way by nature's unaided efforts is considered, and yet no harm results to the child, the thought presents itself why should artificial rotation, if carefully executed, be more dangerous than natural rotation? The experiments of Tarnier give positive proof that this fear is more theoretical than practical, in that when the head is twisted one-half the circumference, the shoulders being fixed, the motion does not alone occur at the atlo-axoid joint, the whole of the cervical and a portion of the dorsal vertebræ twisting spirally. The author ascribes a much more serious effect to the prolonged and severe flexion necessary for nature to successfully deliver these cases, he having met several cases of convulsions in the newborn, which he feels sure were due to cerebral apoplexy as a result of prolonged and violent flexion.

Regarding Hypertrophied Faucial Tonsils.

Dr. Barnhill contributes an article to the Columbus Medical Journal with this title. He says:

1. That the tonsil is practically a useless organ, from the fact that its functions can be performed by the abundance of similar tissues elsewhere in the body.
2. That when enlarged and consequently diseased it is always a menace to health and may predispose to fatal illness.
3. That it requires treatment on the same rational grounds that an irritated infective tooth root should receive attention.
4. That disease arising in and from the tonsil is either due to the obstruction it causes, or to chemical or bacteriological processes going on in its crypts.
5. That such ailments may be cured by removing the obstruction or eradication of the crypts, or both.
6. That this is best accomplished by ablation of the gland beyond the bottoms of the crypts.
7, That little of a satisfactory nature to either patient or operator will have been accomplished by merely slicing off the top of any diseased tonsil.

Contributions to the Behavior of the Respiratory Apparatus in Epileptic Convulsions.

Dr. Bressler has observed that epileptic patients frequently complain of pain or oppression in the side, breast, or back after their attacks. Suspecting that there might be some morbid basis for this condition, he has repeatedly examined such patients, hoping to find either pleuritic friction or localized ráles; but the results were always negative. He is, therefore, compelled to believe that the violent movements and the increase of blood-pressure during the convulsive attack have caused petechial hemorrhage beneath the visceral pleura. He admits that to prove such an assumption much material from autopsies would be necessary and this he has not been able to obtain. Nevertheless, in all cases that he has seen since his attention has been directed especially to this point, he has found changes that indicate either recent or old subpleural hemorrhage. Indeed, hemorrhage has been found not only in the pleura, but also in the pericardium and even beneath the capsule of the kidneys. He has observed, moreover, that these hemorrhages occurred also in cases in which death was due apparently to paralysis of the respiratory centre without convulsive movements. An additional agent in their production may also be compression of the aorta, due to violent contractions of the diaphragm.

The Use of Gloves in Practical Surgery.

Wolfler attaches much importance to the use of gloves in surgical work, especially in the examination of cavities such as the vagina and rectum, in dealing with septic wounds during a course of operative surgery on the dead body, and in the performance of any aseptic operation. By this precaution the surgeon may effectually guard both his patients and himself from serious danger, and so prevent in the first place the infection of a fresh and clean wound from the contact of his fingers during an operation on the living subject, and, in the second place, infection of his own fingers by a foul wound or contact with the cadaver. A suitable glove for such purposes must, it is pointed out, fulfil the following conditions: It should be rendered impermeable by the addition of some waterproof substance, either applied as an external layer, or diffused through the whole thickness of its material; such material should be very soft and pliant, and, at the same time, not likely to be readily torn; it should not compress the skin too much, and render the hand warm; and finally, it should be capable of being readily and thoroughly disinfected.

Chemical Bacteriology.

Proteus vulgaris, says the British Medical Journal, are included a large number of microbes, differing from each other in many points, but all having the same general characteristics. It has recently been suggested by MM. Lannelongue and Achart that a distinguishing character might possibly be obtained by studying the effects of the individual organism from a chemical point of view.

Acting on this suggestion, Dr. Gaillard, working in Lannelongue's laboratory, has, in a recently published thesis, given the first results of his investigations. The author has studied with great care the products formed by growing the various organisms in standard broth. To this broth was added calcium carbonate with the object of fixing any acids formed, with the addition in various experiments of glucose, saccharose, glycerin, dextrin, etc. In each case the products of metabolic activity were carefully investigated. The principal differences are conveniently given in a table. This is the kind of bacteriological work very much needed at the present time. Not until we know more about the chemical activity of even the commonest and most ubiquitous bacteria can we say that bacteriology is an exact science. Not until biological chemistry is placed on a firm basis can physiological processes be understood, and on this rests the whole of medicine.

Pathologic and Clinical Contributions on the Subject of Hemorrhoids.

Reinback (International Medical Magazine) calls attention to the almost complete absence of reliable microscopical examinations of this affection reported in literature, the paper of Quenu being the only work of any importance on the subject. The conclusions arrived at by the author are at variance with the old and generally accepted view, first expressed by Walæus, that hemorrhoids consist of dilated hemorhoidal veins, and that they are due to disturbances of circulation or stasis. In view of the facts that disturbances of circulation, such as are found in diseases of the heart and obstructions of the portal circulation and of the vena cava inferior, are very rarely associated with hemorrhoids, that hemorrhoids have been observed in very young and otherwise healthy subjects, even in the newborn, and furthermore that the affection when thoroughly removed by operation very rarely returns, the old theory of stasis appears to the author to be entirely inadequate to explain the etiology of this affection. To elucidate this question a long series of investigations were made. In order to have proper material for comparisons, a number of sections, taken from the anal regions of very young subjects, varying in age from seventeen days to one and one-half years, were carefully examined with the naked eye and also microscopically. Microscopically the mucous membrane near the anal orifice was of exceeding fineness; very few veins were visible; the membrane could easily be distinguished from the subjacent tissue as a whitish layer. The boundary line between the skin and subcutaneous tissue is, however, much less distinct. The submucosa contains the fine veins situated near the mucous membrane. Microscopically the submucosa is characterized by a remarkable vascularity. The vessel-walls are of normal thickness.

The author divides hemorrhoids into four types: (1) the type characterized by germinating capillaries, (2) those in which cavernous tissue predominates, (3) that form in which very much dilated veins are observed (angioma cavernosum), (4) cases showing marked thickening of vessel walls, due to chronic inflammation. All, however, show microscopically a decided increase in the thickness of the submucous and subcutaneous tissue layers as compared with the normal, and in many cases a total absence of phlebectasia. As a result of his study of a large number of sections, the author comes to the conclusion that this affection consists essentially in the new formation of young blood vessels by a process of germination from the older vessel walls and the consequent formation of cavernous tissue. Inflammatory changes, such as thrombosis and endophlebitis, may also occur within the neoplasm, but are absent in the majority of cases. Venous stasis, according to this author, has nothing to do with hemorrhoids, being at most a secondary phenomenon.

The Prevention of Enteric Fever.

Dr. Payne (The Hospital) at a recent meeting of the Royal Medical and Chirurgical Society, spoke very strongly in favor of dealing with the infection at the fountain head, and urged that. if the ideas at present current in regard to the etiology of the disease were correct, if, that is, every case originated directly or indirectly from a preceding case, to prevent the communication of the infection, in other words, to intercept the infection as it left the patient, would be enough to stamp out the disease. The problem, according to this view of the case, was to destroy the bacillus while leaving the body, and while it was within our reach, and above all, not to allow it to infect water or soil where it might grow, and whence it might spread; and the prevention of typhoid fever involves the protection of our water supplies from all forms of pollution by excreta, for to stop its growth then, when it had got such a foothold, seemed to be an almost hopeless task. Those, then, in charge of typhoid cases, occupied a most responsible position, for on their intelligent efforts to ensure the disinfection of the discharges depended the stamping out of the disease. In this case prevention like charity began at home.

We need hardly point out that the importance of Dr. Payne's remarks lay in the fact that they were the proper and perfectly logical deduction from certain widely accepted premises. Kill every microbe as it leaves its burrow and the breed will die. Unfortunately even clinical experience tells us that many cases of typhoid fever wander about during a considerable portion of the time of their greatest infectivity, and as the application of modern tests tends to show that a certain proportion of the cases commonly returned as diarrhœa are really cases of typhoid fever, it becomes more and more obvious that the destruction of the excreta even, of every recognized case, must fail to "stamp out" the disease from our midst.

Is Inherited Syphilis Contagious.

Parker (Medical Review of Reviews) arrives at the following conclusions regarding this important subject:

1. The children of syphilitic parents very frequently show manifestations of a disease which is almost universally called "inherited syphilis."
2. In a large proportion of the cases this inherited disease is not syphilis at all, in that the disease is not contagious, and would be better named "inherited from syphilis."
3. This inherited disease is true syphilis only if it conform to the ordinary tests which pertain to contact syphilis, and prove to be infectious and contagious.
4. The children of syphilitic parents occasionally inherit syphilis.
5. The mother suckling a child with such a disease may be infected by it.
6. A healthy wet nurse and other persons brought into contact with such a child are even more liable to be infected by it than the mother.
7. Lymph taken from such a child, even though apparently well at the time, will probably, or possibly, invaccinate syphilis.
8. In reply to the question, Can a healthy woman give birth to a syphilitic child, the answer must be, No.
9. Many women give birth to children who suffer from what is called "inherited syphilis" without themselves appearing to be infected. The explanation is obvious. This "inherited syphilis" is not syphilis in the true sense, and the mother's so-called escape depends on this fact.
10. There is no recent clinical evidence which fully realizes Colles' teaching, viz., a mother suckling her own syphilitic infant and escaping an infection to which a healthy wet-nurse suckling the same infant, and other members of her family who have merely handled this infant, have succumbed, the latter facts being essential, if only to establish the contagiousness of the infant's disease in any and every given case asserted to be "inherited syphilis."

Vaccine.

Dr. J. H. Huddleston (Medical News) presented a paper with this title at the Harvard Medical Society in which the following interesting points were brought out:

(1) Vaccination in Europe; (2) a good vaccine laboratory; (3) tetanus following vaccination; (4) generalized vaccinia, and (5) vaccinal immunity. The author described the various methods of preparation of vaccine virus employed in Europe, and stated that vaccination with calf-lymph is generally practised on the Continent, while it is rarely used in England, where human virus is preferred. Vaccine laboratories in Germany are under Government control. The percentage of successful vaccination in Berlin is 96.84; in Hamburg, 94.85. The best laboratory, in buildings and equipments, is that of Cologne, which the author described at length. A case of tetanus following vaccination was referred to, also forty-five cases of generalized vaccine in patients varying in age from three days to sixty-two years. Twelve of these were vaccinated with bovine virus, either direct from the animal or preserved; 18 with humanized virus; 1 with cow-pox, and 1 with horse-pox by accidental inoculation. The source of the virus in the other cases was not stated. Nine out of the 45 cases were not vaccinated in the usual way; 8 were inoculated with virus from the vaccine vesicle of another person, and the ninth ate vaccine crusts given accidentally with the food. Seven of the cases terminated fatally as the result of some complication. In regard to vaccinal immunity, the author said that little or no immunity is given the fetus by vaccination of the mother, as shown by Wolf and Gast, who vaccinated respectively sixteen and seventeen women in various stages of pregnancy and subsequently vaccinated the children with complete success. Natural immunity is so rare that those who have seen the largest number of vaccinations are least inclined to admit the possibility of its existence. Immunity is acquired slowly through the medium of vaccination. Repeated experiments have been made by vaccinating a person daily until the vaccination failed to take, and it has been found that immunity is usually secured within from seven to ten days. The duration of the immunity when obtain-

ed is extremely variable; in some cases it apparently lasts a lifetime. Allbutt has reported the case of a woman who was successfully vaccinated three times, and who had smallpox three times. At North Brother's Island, New York, where patients are vaccinated on arrival, it has happened that persons repeatedly sent there have, on each occasion, been successfully vaccinated, revaccination having followed within six months of the first inoculation. Buchanan has reported a series of cases occurring in prisoners in which successful revaccination followed the first inoculation within a very short time—in 4 cases within less than a month; in 9 within two months or less; in 3 within three months or less, and in 12 within six months or less.

The Vitality of Typhoid Bacilli.

Sir Richard Thorne, (British Medical Journal, Dec. 11, '97,) in his remarks during the discussion on enteric fever at the Royal Medical and Chirurgical Society last month, mentioned some experiments made by Dr. Sidney Martin, who found after sterilising two samples of soil (one of which was saturated with organic matter) and inoculating both with typhoid bacilli, that the organism survived for at least 220 days in the solid containing much organic matter, while it was dying out in the other in 23 days. He also referred to some experiments by Dr. Robertson, of Sheffield, who found that on unsterilised earth, much contaminated with refuse, the bacilli died down in the winter months only to multiply freely in the summer. Dr. Edward Germano has made some experiments recently at the Hygienic Institute at Bonn bearing upon this point. He noted the great difference in the periods for which the bacilli, when dried, retained their vitality, namely, from eight days to five months, according to various authorities, and from 21 to 82 days in the more trustworthy observations of Uffelmann. Dr. Germano began by pulverising, sifting, and sterilizing samples of house dust, sand, humus, peat, tufa and loess, which he then saturated with bouillon cultures, the liquefied portion of agar cultures or the actual fæces of typhoid, placing the preparations in porcelian dishes, some in the ordinary dwelling rooms, and others in a moist incubating chamber. In the former case the bacilli had died out from the cultures in twenty-four hours, and from the excreta in six days, but in the latter case all were active after sixty days. Portions of clothing steeped in typhoid fæces, and placed in open saucers in a bed room retained their infectivity, the linen and cotton for sixty, and the flannel for ninety days, the latter being more retentive of moisture. He concludes that the lifting by currents of air of recently desiccated typhoid germs from drains and cesspits alone or adhering to particles of dust must be admitted as a possible origin of sporadic cases, though outbreaks on a larger scale are invariably waterborne, directly or indirectly. Distant diffusions by winds he rejects as highly improbable and wholly unproven, remarking, for example, that the only instances adduced by a German authority, Mewins, of outbreaks occurring in Heligoland after those in Hamburg and Cuxhaven were far more easily ascribed to the imperfectly disinfected and apparently dried rugs, woollen underclothing, etc., brought by convalescent visitors from these towns.

Bacteriology of Whooping-cough.

Czaplewski and Hensel have examined the sputum in this disease. (British Medical Journal, Dec. 11th, '97). The denser parts of the sputum are washed in three lots of peptone water. If the sputum is thick this washing is easily effected. Streak cultures are then made, Loeffler's blood serum being the best nutrient medium. The microbe is stained with carbol glycerine fuchsin (Czaplewski) or ordinary carbol fuchsin. A small short bacillus with rounded and swollen ends is found often in pure culture. It resembles the influenza bacillus morphologically, but differs from it in growing on all the ordinary nutrient media. The ends of the authors' bacillus stain more intensely than the other parts. Sometimes it forms longer threads and sometimes several individuals remain together in a chain. It is non-motile and possesses but small resisting powers. In young cultures it stains by Gram's method, but if it be then afterstained with cabol glycerine fuchsin it is coloured red. In several cases of whooping-cough this bacillus is present in large numbers. It is only occasionally contained within cells. If the sputum is not well washed other microbes, especially the streptococcus, develop, and the isolation of the bacillus becomes difficult. The colonies are not very characteristic; they are somewhat raised, slightly yellowish grey, and resemble to some extent dew-drops. Experiments on animals have as yet been negative. The authors have examined some 30 cases, and the constant presence of this bacillus leads them to publish the results. In some cases the bacillus was found before the patient presented the characteristic symptoms. One of the authors himself developed, while working with the material, an intense coryza with a few spasms of cough on one day. The bacillus was found in few numbers but in pure culture in the nasal secretion

Disease and Deformity of the Tibia.

Dr. S. Ketch presented a patient with an unusual deformity, of five years duration. The patient was a girl twelve years old. He had seen her for the first time one week ago. There was anterior bowing of the right tibia and some eversion of the foot. The bone was three inches longer than that of the well leg and greatly thickened. The circumference of the leg was one and a half inches larger than on the well side. The child's general condition was poor, the result probably of pain, which had been a feature of the history. The skiagraph showed a thickened tibia with some irregularities in the enlargement and an almost complete disappearance of the epiphyseal line due to pressure. He had traced cases resembling this in many features to syphilis, but here there were no signs of infection and no history of transmission.

Dr. W. R. Townsend said that he had seen a somewhat similar case to this, in which the extra heat of the limb had led to a diagnosis of osteitis. The diagnosis was wrong, however, as at the end of five years the bone was found to be sarcomatous and amputation was done. He thought that the question of sarcoma should not be overlooked in considering the treatment of the present case. The remarkable deformity of the bone had some resemblance to the bowing of a syphilitic tibia, but it was not the "*lame de sabre*" described by Fournier.

Dr. H. L. Taylor said that the strong anterior curvature of the tibia, the enlargement throughout the shaft, the slight nodes on the surface and the elongation of the bone pointed to syphilitic osteitis.

Dr. J. Teschner had noticed that the swelling and tenderness were more marked on the anterior aspect of the bone, where there was probably pus. These signs and the localized heat indicated an inflammatory action and led him to believe that there was necrosis and that a sequestrum had produced the thickening and enlargement.

Dr. R. Whitman said that the skiagraph showed that the entire bone was involved. He did not think it was sarcoma, but rather a case of diffuse osteitis which might have been of syphilitic origin. There might also have been a fragment of necrosed bone within the shaft which kept up the chronic inflammation with continuous enlargement of the bone.

Dr. V. P. Gibney said that he would treat the case as one of abscess of the tibia. Opening the medullary canal would probably reveal several abscesses. In any case it would not do any harm to operate in this way even if the case were one of sarcoma. He had operated for multiple abscess of the tibia in a young woman and had planted decalcified ox bone in the trough-like cavity. Some of it remained and some did not, and other operations had to be done. Since the last she had been perfectly well and was living out at service.

Dr. Ketch said he was disinclined to think that his patient had sarcoma. This, as well as multiple abscess, would have caused more local and general disturbance. He believed that a sequestrum was present. Anti-syphilitic medication would be thoroughly tried and after that the bone would be operated on.

A Case of Genu-Valgum.—Dr. R. H. Sayre presented a patient, a boy sixteen years old, who, while carrying heavy loads in a bakery, six months ago, began to have double genu-valgum, the result of adolescent rickets, and a failure of the bones of the legs to sustain the weight. Three months ago the limbs were put up in plaster of Paris and the boy was kept in bed for two months. To correct the deformity a circular cut was made in the plaster of Paris around the knee and a wedge of wood was inserted on the outer side. In a week or so the knee was straightened still further and a larger wedge was inserted. At the end of two months when the splint was removed and the boy began to walk again, there was a slight transient synovitis. To improve his general condition strychnia had been given and the elixir phosphori of the national formulary. The result of treatment was that the limbs were very nearly straight. As there remains some relaxation of the joints, he should have braces to prevent lateral motion during convalescence.

An Operation for Slipping Patella.—Dr. Whitman presented a boy thirteen years old, upon whom he had operated sixteen months ago for slipping of the right patella. The capsule had been divided on the outer side and considerable difficulty had been found in reducing the dislocation on account of the contraction of the tissues. A tuck was taken in the capsule on the inner side. The patella was now over the external condyle. When he left the hospital it had been in the median line. For a time he had worn a knee-cap as directed, which he had long ago discarded. This case was not presented as a fair test of the operation, as the dislocation was but part of the disability and deformity attending hemiplegic contraction of the right side of the body. It had, however, relieved pain and discomfort.

Dr. Gibney said that it was still a question what is the best treatment for slipping patella. He had transplanted a fragment of the tibia with the insertion of the ligamentum patellæ in a girl fourteen years old. Union in the new position was secured and the limb was put up in plaster of Paris. In spite of a little suppuration the recovery was good. The ultimate result, however, was in doubt, as the patient was lost sight of.

In another young woman the slipping had occurred repeatedly, followed sometimes by acute inflammation. A splint had been applied and she was still wearing it to keep the patella in place. In a boy of four years the slipping patella had been easily reduced and it is probable that massage and the growth and development of the muscular fibres will be sufficient to remove the trouble.

KYPHOSIS OF UNCERTAIN ORIGIN.—Dr. Townsend presented a patient with marked kyphosis in the dorsal region and slight lateral curvature. The patient was a man twenty-four years old, a clerk by occupation. He had had slight pains in the back for eight years, but within the past year the pain had increased and was accompanied by shortness of breath. The diagnosis had not been fully made. It was possibly a case in which lateral curvature was the chief cause of the deformity and symptoms, or it might be an instance of exaggerated round shoulders, or vertebral caries might have been the origin of the trouble.

Dr. Gibney said he saw no indication of osteitis or tubercular disease of the spine. There was a little lateral curvature and an exaggerated anterior curve.

Dr. Ketch said that the case was one which had not followed the ordinary course of lateral curvature. The general kyphosis reminded him of senile curvature which, however, rarely occurred at the age of the patient. The man had said that the pain had been so severe as to require the use of mustard plasters. It had radiated around from the back to the front under the nipples. He had never met a case of lateral curvature in which there was pain at the terminal end of the nerve. He thought this was the pain of an inflammatory lesion and that the trouble was antero-posterior rather than lateral and was getting worse. He would treat the patient for an inflammatory affection and would advise a certain amount of rest for the spine.

Dr. Teschner thought that the curvature was antero-posterior and that the condition was neither tubercular, rheumatic, nor osteitic, and that the pain was not necessarily due to nerve pressure, but rather to the immobility of the spine, or it might be due to indigestion. He would increase the mobility by two or three weeks of gymnastics. He thought that the patient should not be put in any kind of retentive apparatus which would hold the spine immovable. Considerable pain was present in some cases, even when the curvature was not marked. This pain was generally due to a relaxed condition and not to nerve pressure. It was a muscular pain like that caused by stretching a muscle, analagous to that of muscular rheumatism. This could be relieved by exercising the muscles vigorously, producing a little more pain, and repeating the same thing the next day; the pain will then disappear. These cases could be cured in from 48 to 72 hours if relief from pain were considered a cure. Some lateral curvature patients complained of pain only on executing certain movements, as, for instance, writing or violin playing, etc. A patient had formerly been able to play the violin from two to three hours without inconvenience. When lateral curvature appeared, she could not play for fifteen minutes without pain, but after a short treatment she could play as formerly.

Dr. A. B. Judson thought that the case was one of lateral curvature in which the curve in the line of the spinous processes was slight, while the curve in the bodies of the vertebræ was as if it were compressed vertically. The trunk was shortened and the result was bulging of the chest walls and kyphosis with a sharp anterior curvature in the lumbar spine. In a question of diagnosis, he thought that pain and other subjective symptoms were less important than the objective signs. He would treat the patient for lateral curvature by appropriate exercises and attitudes for expanding the chest and the avoidance of fatigue.

Dr. Taylor thought that the case was one of lateral curvature with more than the usual pain, and with the exaggerated roundness of the shoulders sometimes found in people whose weakness induced postural deformity.

Dr. T. H. Manley said that the history of the case pointed to some special constitutional condition which had caused the deflection of the spine. He thought that the question of syphilis should be considered. There were no evidences of a tubercular condition, but he thought that there was a rachitic element in the case. He would combine local, mechanical support with constitutional treatment by the administration of acids or iron.

UNUSUAL DISLOCATION OF THE TIBIA.—Dr. Taylor presented a patient with unusual deformity and disability of the right knee. The patient was a woman, 23 years old. The trouble had begun when she was nine months old with redness and swelling, and the knee became flexed and its motions limited. When she was ten years old the knee was injured by a fall and has heen deformed as at present ever since. There has been no abscess and no cutting operation has been performed. There is complete dislocation of the head of the tibia backward and abnormal lateral mobility. The bones of the knee are small and there is about one and a half inches of shortening of the limb. There is considerable voluntary motion and she can walk for a few minutes without her brace.

Dr. Townsend had seen a similar case, but less marked, in which the deformity was due to an inflammatory lesion without any destruction of the bone.

Dr. Gibney recalled cases of supposed congenital dislocation of the hip, in which operation had revealed the results of an inflammatory process so extensive that the head of the bone was well nigh gone. He thought the present case might have had a similar origin.

Dr. Manley thought that the condition of the patient's knee was due to some pathological process and not to traumatism. He said that the case was a proper one for resection of the fibula and tibia. He was perfectly aware that the acuteness of the operative fever had swept over, and that we are getting back to more salutary conservatism, but this seemed to be an ideal case for operation,

Dr. Taylor said that the patient had declined operative treatment, and he intended to continue giving to the limb mechanical support by means of a Thomas (caliper) splint attached to the shoe, instead of extending below it. He thought that the small size of the bones was due to lack of development rather than to destruction of the bone, and that it was very improbable that this condition was produced by a fall, in a healthy limb. There had been some pathological process from infancy which probably left subluxation and flexion, as usually happens in chronic inflammation of the knee, and the fall at ten years of age might have greatly increased the trouble. He had seen a patient in whom a similar condition had been caused by traction applied in the treatment of hip-joint disease. The hip was cured but the knee was weakened so that the tibia just hung on the posterior edge of the condyles.

The Surgery of Pelvic Inflammation.

Dr. Polk, of New York, summarizes, in the Medical Record, a paper as follows:

1. In acute inflammation, with implication of the cul-de-sac, incise and drain.
2. In unilateral suppuration, tuberculous inflammation excepted, treat the uterus and remove the diseased appendages by the vagina.
3. In double suppuration, vaginal hysterectomy with enucleation and removal of the purulent appendages—the so-called pus sacs.
4. In suppurative disease, whether double or single, if the patient is too weak to stand the radical operation, evacuate the pus and drain, reserving the radical operation for the future. Choose the route (vaginal or abdominal) which the pus seems disposed to select.
5. In broad-ligament abscess—a matter to be determined by a vaginal exploratory section, if necessary—evacuate by approaching the pus through the uterus, vesical region, or beneath the peritoneum along the route of the round ligament.
6. In suppurative disease do not do abdominal section, but, if you should, do not leave the uterus or the cervix.

Serum Diagnosis of Typhoid Fever.

In a recent circular addressed to the President of the Board of Health of Quebec, Dr. Wyatt Johnston states that after a year's trial, he has found Widal's method of diagnosis of typhoid fever quite satisfactory. (British Medical Journal). He still considers that the use of dry blood for this purpose answers every requirement, and does not find it necessary for routine work to have recourse to quantitative methods. Nevertheless he has thought it desirable to devise such a method. He measures the blood, as it is obtained from the patient by means of a metallic loop. The measured drops are dried on a glass slide, or on a piece of nonabsorbent paper, and sent to the laboratory, where the blood can be diluted at will. It is interesting to notice that in its present form Dr. Johnston's procedure resembles closely the one introduced fifteen months ago by Prof. Delepine, with the difference that the latter finds it simpler to have the blood collected in minute glass tubes, which, after being sealed up, are sent to the laboratory, where blood, bouillon, and culture are measured carefully by means of a platinum loop of definite size. Dr. Wyatt Johnson has also recognized the importance of the reaction of the culture medium. He says that this should be such that 3 to 4 per cent.

of normal alkali should be required to make the bouillon neutral to phenolphthalein. This amounts to, say, that the bouillon must be feebly acid. This is in agreement with various observations published previously where the danger of using alkaline media is shown. It is satisfactory to find that after a year's trial the method is still working well at Montreal. Various opinions have been expressed as to its value, but where the method has been used systematically, and with care, in public health work, it seems to have yielded valuable and very reliable results. This was shown last September at the Leeds Congress of the Sanitary Institute. The results of clinical examination and serum testing of over 400 cases of suspected typhoid fever observed in Manchester being analysed, it was found that the serum diagnosis was supported by the course of cases observed in hospital, and with regard to the cases observed in general practice, the medical attendants testified to the correctness of both negative and positive results in not less than 94 per cent. of them. All the *post mortem* examinations obtainable had confirmed the results of the serum test.

Chronic Nasal Catarrh.

Dr. O. B. Douglas thus summarises the subject:—"Is the cure of chronic nasal catarrh as difficult as supposed!"

1. The nose is not an unimportant organ, as some have seemed to suppose, but, physiologically and pathologically, it is of the first importance.

2. Its position and functions expose it to injury and disease necessarily. Variable temperatures, chemical and mechanical irritants, as well as its normal fluxes—perverted—tend to produce disease.

3. Its diseases yield to proper treatment as certainly as those of any other complicated organ.

4. So-called "catarrh" is not a disease *per se*, but a symptom or result of other lesions.

5. "Chronic and nasal catarrh" is usually due to nasal obstruction. By this I mean not necessarily an occlusion of a nostril, or even an obstruction to respiration, but simply an habitual contact of surfaces which are not normally so in contact.

6 Removing the cause is always the first step towards a cure, and this most frequently requires surgical interference. Local and general medication are of secondary, though by no means slight, importance.

7. The nose and its diseases are deserving of more study than has been given them by the profession generally, because the consequences of neglect are far-reaching and serious, and the surgery requires skill and experience.

8. Chronic nasal catarrh—so-called—is not so difficult to cure as by many has been supposed, for it is the result of removable causes in most cases.

Clinical and Experimental studies of the Influence of Behring's Diphtheria-Antitoxin on the Health and the Diseased Kidney.

Siegert from clinical and experimental studies, arrives at the following interesting conclusions. Pediatrics:

1. As a sequel to the subcutaneous injection of Behring's diphtheria-antitoxin, we frequently meet with a slight temporary albuminuria and albumosuria in patients treated with the serum, both for therapeutic and for immunizing purposes. This condition need not be considered a serious disease of the kidneys.

2. A like form of albuminuria and albumosuria, accompanied by a diminution of urine and an increase of its specific gravity, is met with in experiments on animals.

3. This albuminuria is due to the serum itself, and not to the amount of carbolic acid present in former. The latter does not cause albuminuria, but, on the contrary, has a slight diuretic action.

4. Of severe changes in the kidneys, as an immediate sequel of the serum injection, there has been observed acute parenchymatous and hemorrhagic nephritis. It has, however, not yet been demonstrated that these stand in any relation to an unchanged Behring's diphtheria-antioxin.

5. Cases of anuria, which have been observed at the bedside, occur also occasionally in experiments on animals.

6. A pre-existing albuminuria in patients suffering with diphtheria, runs, as a rule, a benign and rapid course after the exhibition of a serum injection.

7. It is not possible to produce anatomical lesion of the kidney in the rabbit by the subcutaneous injection of 10 c. c. m. of Behring's serum.

8. Relatively small quantities of serum do not influence diuresis in experiments on animals, and are to be preferably used for that reason at the bedside. Hence the demand for a concentrated serum, which has now been furnished.

9. Should Behring's diphtheria-antitoxin prove a specific against diphtheria, its after

effects on the functions of the kidney, which are usually insignificant, ought not to be sufficient ground for its abandonment

The Administration of Medicine to Children.

Dr. Charles West, in the "Practioner," writes concerning the difficulties attending the administration of medicine to children. He alleges that these arise from two reasons, one being that the medical man prescribes medicine unpleasant in taste and smell, and the other that parents do not make obedience the keynote of their dealings with their young. The latter objection opens a somewhat wide range of speculation which cannot be readily set to rest, and, therefore, is not worth discussing, but the former relating to unpleasant medicines, is one which merits the attention of the prescriber. Dr. West suggests a remedy. He thinks medicines should be given in small quantities and as free from flavour or smell as possible, while such abominations to the infant mind as bulky powders and sticky messes should be rigorously avoided. The best purges, he admits, are castor oil, senna, jalap, and scammony, and of these, as castor oil occupies the first place on the list we presume he gives it the preference.

He says, moreover, that castor oil can be prepared in a very simple way, in a form which to all intents and purposes is tasteless. It is simply shaken up in a bottle with a wineglass of hot milk, well sweetened, and flavored with cinnamon. This puts the otherwise objectionable oil in quite a pleasant light to the youngsters, and there will be no difficulty in securing its due acceptance.

Antiseptic Treatment of Diarrhea in Infants.

For the last five years much time has been expended in seeking the part played by bacteria in infantile diarrhae. Pediatrics. A toxic origin was suspected long before the era of microbes. Escherich was the first to settle the question of origin upon a scientific basis, he demonstrated that the usual common cause of infantile diarrhea are the bacterium coli and the bacillus lactis. It will be easily seen how great an influence the bacillus lactis must have in the majority fo cases of infantile diarrhea and how a temporary discontinuance or reduction of the milk diet will exercise a salutary effect in checking the progress of the disorder. The French claim to have tried with satisfactory results the treatment of infantile diarrhea by means of the antiseptic properties of water. The methods of procedure, are as follows:

"The child is allowed no nourishment for 8-12-24 hours, and during this time it is given in small mouthfuls at half-hour intervals or every time it is thirsty, water which has been boiled and cooled to a suitable temperature. The quaniity of water administered may reach a litre and a half per day." Of course the principle of this treatment is to rest and cleanse the overworked intestine,s at the same time maintaining the blood pressure by the quick absorption of the water.

How to Drink Milk.

Many persons complain that they cannot drink milk without being "distressed by it." The most common reason why milk is not well borne is due to the fact that people drink it too quickly. If a glass of it is swallowed hastily, it enters into the stomach and then forms in one solid, curdled mass, difficult of digestion. If, on the other hand, the same quantity is sipped, and three minutes at least are occupied in drinking it, then on reaching the stomach it is so divided that when coagulated, as it must be by the gastric juice, while digestion is going on, instead of being in one hard, condensed mass, upon the outside of which only the digestive fluids can act, it is more in the form of a sponge, and in and out of the entire bulk the gastric juice can play freely and perform its functions.

Pathology and Surgery of Intussusception.

In the Hunterian lecture on this subject Dr. Power gave the following conclusions (British Medical Journal):

Intussusception is a condition which brooks no delay in its treatment, for something must always be done at once, except, perhaps in those slight cases which are indistinguishable from severe colic. In all doubtful cases purgatives should be completely withheld. Cats and rabbits bear a simple invagination with remarkable freedom from symptoms, and after a varying period of time the invaginated bowel could be excised and the animal would recover. All the animals, however, to which purgatives were administered after the intestines had been invaginated died when enterectomy was performed. Clinical evidence teaches the same lesson, for all the records of cases show that the symptoms have been seriously increased when the patient has been purged. The routine treatment of intussusception is to chloroform the patient, and steadily to fill his large intestine with hot salt solution under a hydrostatic pressure of not more than three feet in a child, the fluid being allowed to remain in the intestine at least ten minutes. The earlier this method is adopted after the appearance of the symptoms the better are the results obtained, but it should not be adopted in enteric intussusception, in cases where the symptoms are very acute, or in those where the absence of signs or symptoms, with a subnormal temperature, leads the surgeon to suspect that the intestine is becoming gangrenous. In these cases, and when the intussusception is not reduced after irrigation has twice been tried, and when after reduction the intussusception has thrice occurred the abdomen must be opened.

The surgeon must then be prepared to deal effectually with the conditions he may find by such operative means as he can carry out with the least amount of shock and in the shortest space of time that is compatible with the safety of the patient. This will be insured if he uses the method with which he is the most familiar. But he should bear in mind that hardly a casé can arise in which he is justified in closing the abdominal wound without at least an attempt to complete the operation by reducing or removing the intussusception. Such half measures as the formation of an artificial anus are hardly ever justifiable, and the results obtained by them are usually most disastrous. In the light of our present knowledge it appears that the use of a button or bobbin is most likely to give good results when enterectomy has to be done for an enteric intussusception, while Maunsell's operation is best adapted for the cure of ileo-cæcal and colo-colic forms of intussusception.

Method of Removing Large Calculi from the Bladder.

Freyer (British Medical Journal) pronounces Bigelow's method, which consists in the rapid crushing of the stone and complete removal of its fragments at one sitting by means of the aspirator and cannula, the safest and best for calculi of all sizes in patients of all kinds and conditions, provided only that this operation is feasible. When not practicable he considers that calculi up to about three ounces in the adult, and a corresponding weight in the child, are best removed by perineal lithotomy; beyond that suprapubically.

Dr. Freyer states that six and one-eighth ounces is the largest stone he has removed by Bigelow's method. He advises that in no case should a stone, large or small, be subjected to a cutting operation till, after trial, litholapaxy is found not to be feasible.

The lithotrites used by Dr. Freyer generally vary from No. 4½ up to 18 of the English scale; but it is only the larger sizes, from No. 11 up to No. 18 that are of any practical use in dealing with these large stones. One lithotrite was constructed for him many years ago by Weiss, and it has crushed some 320 calculi. It combines the handle and locking action of Bigelow's lithotrite with the fully fenestrated blades of Weiss and Thompson. This ball handle affords a much firmer grip to the hand than the old-fashioned wheel—a grip that is essential in dealing with large and hard calculi. The locking action is of the simplest character, the instrument being locked or unlocked by a quarter turn of the wrist, to the right or left respectively, and the left hand is free to grasp the female blade and hold it steady in the bladder during the various manipulations, so that the tilting of the instrument that is liable to occur when the button-locking action is employed is thus obviated.

The cannulæ required for large calculi in the adult vary from Nos. 14 to 18.

Dr. Freyer has worked chiefly with a simplified form of the aspirator which Bigelow used for some years before his death.

No Pay for Expert Testimony.

The St. Louis Medical and Surgical Journal, commenting upon a recent Supreme Court decision in Illinois, says:

The close relationships which were supposed to exist between the professions of the law and medicine bid fair to be strained, if not altogether sundered, if insistance be made upon a certain decision recently made in Illinois, and sustained by the Supreme Court of that Commonwealth. The decision is simply that physicians must testify as experts whenever called upon to do so, and their compensation is simply that of ordinary witnesses. It is a decision that is calculated to take one's breath away.

Had it been the ponderous decision of some Dogberry who had taken the matter under advisement for many months, we might, perhaps, understand such a wonderful conclusion, But that a judge with intelligence, and a Supreme Court with presumably still more legal acumen and intelligence, would render such an unjust opinion is beyond our comprehension. It is indeed, placing a very low estimate on learning which is not confined to the craft. When we stop but a moment to consider the enormous fees allowed to lawyers for services in no way extraordinary, it seems to us to be hardly fair to treat medical men in such a shabby way,

This decision simply places the medical profession at the mercy of every unprincipled legal shark and shyster. For the sake of making an impression upon a jury any sprig of a lawyer may subpena the most eminent physician, and cause him to lose valuable time, which, in his case, means money. It may also, unfortunately, mean the danger or possible death of a patient, and, in addition, the accusation of neglect, which was certainly forced by an arbitrary decision of a court which seems to have less respect for the rights of others than it has for itself. A mere superficial glance at the decision makes it look rather innocent; but when we consider its far-reaching influence, the authority it conveys, and the various misuses to which it may be put, the gravity of the situation becomes apparent. It was formerly a saying that "the laborer is worthy of his hire," but Illinois justice, as embodied in its learned judges, seems to have set this completely aside, and the physician is forced to work at smaller wages than the ordinary laborer. He has expended money, energy, and time to perfect himself in the highest and noblest profession, and to-day he stands liable to fine and imprisonment if he will not prostitute his calling. Out upon such law say we!

You who are physicians be prepared to lose time, patients, prestige, everything, for the sake of sitting in a justice's or police court and receive your pitiful half-dollar for the knowledge which it has cost you nights of study, days of pondering, and intelligent effort made to achieve a name and reputation in your profession. And it is not the physician with no practice that will be called; it is he whose name is famous, as his evidence is the one required to give prestige to an ordinary case which would otherwise be consigned to well-merited oblivion. We sincerely deplore the fact that the State which has so successfully battled with quackery in medicine should be snubbed with such a legal monstrosity as the decision referred to above. We might be tempted to say now: "Poor Old Illinois." But we cannot ridicule our neighbor, as the learned opinion is a club which the courts of other States may swing at any moment and use strength evoked by that legal shibboleth—precedent.

Therapeutic Problems of Antitoxin.

E. Behring says that the antitoxin of diphtheria, which is the only remedial factor to be considered in the serum, is perfectly harmless and cannot under any circumstance exert a poisonous influence either in the human being or in animals, in the healthy or in the diseased organism, for it has been demonstrated "that the specific diphtheria antitoxin bears no relation to anything else in the world, but only to the specific poison of diphtheria." "The living cells are influenced neither unfavorably nor favorably by antitoxin." (Pediatrics Jan. 1, '98.) Pure diphtheria antitoxin is a non-piosonous remedy, because: (1) Blood serum containing antitoxin is in exactly the same condition as normal blood serum; (2) the bad effects of serum containing antitoxin do not increase in proportion to the quantity of antitoxin present. After it was found possible to incorporate 600 antitoxin units with one cubic centimeter of serum, and no unsurmountable difficulty was found even in incorporating a 600-fold serum with half a cubic centimeter, the unfortunate discovery was made that the stength of the more powerful serum did not remain constant on keeping, but was at least occasionally diminished. By converting solutions of antitoxin of the strength of a more than 500-fold normal serum to the dry form, it was possible to produce a preparation which can be used in practice. Although still containing salts and albumen, it can be kept an unlimited period of time, is readily soluble in water, does not contain any substance for its preservation, and contains 5,000 antitoxin units in one gramme. The time for practising immunization is now come, as this new preparation can be used without any unpleasant after-effects, the single dose being only 1-40 grm. dissolved in 2.5 cc. of water. Behring's experiments on the dissemination and excretion of diphtheria antitoxin in healthy animals and man have taught him that after a subcutaneous injection of antitoxin the blood of the animal experimented on contained more antitoxin in 1 ccm. after eight hours than could be expected if equally distributed after twenty-four hours, i. e., six times the quantity estimated, and that in the course of a few days the amount of antitoxin became smaller and smaller. It is also said that in the human subject the usual immunizing method for diphtheria does not grant a perfect protection after four weeks. It does not seem possible by increasing the dose of antitoxin to prolong materially the immunizing period, for the reason that excretion becomes accelerated with the longer duration of immunization. The dissemination of the diphtheria poison and of tetanus poison in the animal economy takes place quite differently from that of antitoxin, for hardly more than one hundredth part of that poison reaches the blood, which, according to estimation, should be found distributed over the whole body. This is also true of the poison of tetanus when injected into the veins.

Cattle Malaria.

Celli and Santori report their investigations on a disease which attacks foreign cattle living in the Campagna, but spares those indigenous to the district. (British Medical Journal Dec. 25, '97.) It is characterised by fever, great anæmia, an enlarged spleen, and bloody urine, and is very frequently fatal. The authors found in the red blood corpuscles of animals affected by and dead of the disease a small body assuming two types, according to whether its movements were amœboid or from place to place in the corpuscle. Culture experiments failed, but on one occasion they succeeded in inoculating a healthy calf with the disease, and in demonstrating the foreign bodies in the blood during its continuance. They consider the bodies to be endocorpuscular parasites; they are occasionally pear-shaped, and may be double, whence Smith, of Texas, has given the name of Pyrosoma bigeminum to one of the stages in their as yet incompletely studied developmental history. Although in some severe cases the disease is accompanied by hæmoglobinuria, this is not a constant concomitant nor even a frequent one, so that the name of cattle hæmoglobinuria or hæmatinuria does not afford a characteristic definition. A rapid and certian diagnosis can, however, be made by the examination of the blood, whereby cases can also be detected which would otherwise escape observation. The disease appears to be identical with that described by Babes in Roumania as cattle hæmoglobinuria; by Smith and others as Texas fever; by Krogius in Finland as hæmoglobinuria; and by Sanfelice and Loi in Sardinia as hæmatinuria. When one considers the above-mentioned clinical characters, together with the characteristics of the parasite, the *post-mortem* appearances, the communicability from one animal to another of the same kind and race, and the further circumstances that the disease develops only in malarial neighborhoods and is most favorably influenced by quinine, its resemblance to human malaria is seen to be very marked. The authors propose, therefore, that it be henceforth known as cattle malaria.

Colds and Coughs.

In the editorial column of the Medical Record appears an instructive article with this title. The following is a part of it:

The time of the year has arrived when colds prevail. In the changeable weather that ushers in winter, a chill is easily taken, and especially in the case of children. It is a moot point as to whether the fall or the spring is more productive of affections of the respiratory tract; perhaps the early spring is more to be dreaded on this account, but it is certain that in either season all reasonable precautions should be taken. A well-known novelist humorously describes in the following words the condition of a person suffering from a cold in the head: "You are no longer human, nay, scarce animal; a thing laid on the shelf, a piece of useless lumber, or just redeemed the neuter gender by suffering." An ordinary cold in the head is too often regarded as so slight an ailment as hardly to be worthy of consideration, and its possible sequels are not considered in the serious light they should be. Because in a healthy subject a cold gets well, it does not follow that all colds will take that course, and everything should be done to prevent such attacks and to cut short probable complications. If a cold habitually flies to the chest, it may be taken for granted that there is an inherent weakness of the lungs, and the parents of children with such a predisposition should take steps to eradicate as far as possible the tendency; else the complaint may become chronic or tuberculous infection may result. Whether a common cold is contagious or not is a matter of opinion. Dr. S. Westray Battle (Asheville, N. C.,) thinks that the point is not clear, while Dr. Foxwell says that acute catarrhs are probably mutually contagious, and that pneumonia and coryza are generally recognized as being capable of reproducing themselves in fresh subjects. Dr. Moore, speaking at Dublin, says that "cold in the head is notoriously infectious, and the means of communication is the discharge from the nostrils;" and he is satisfied from repeated observation that this troublesome affection often spreads through a family of children and then through an entire household by the promiscuous use of the pocket handkerchief. That influenza is contagious beyond a doubt, and whooping-cough also runs in epidemic form.

In regard to the treatment of colds, prevention rather than cure should be the motto. Bathing in cold water is often beneficial in preventing colds, or, to speak more accurately, in rendering the body sufficiently hardy to withstand the effects of a chill; but in this practice discretion must be observed. Children with delicate constitutions should be bathed in warm or lukewarm water, and this should be followed by energetic rubbing. Healthy exercise taken in moderation, as walking, riding, wheeling, or gymnastics, is a useless means of holding in check the tendency to catarrh. It is always advisable that children of marked catarrhal tendencies should wear woolen underclothing varying in thickness with the change of the seasons. A writer in a well-known journal gives as his opinion that a cold is frequently caught in bed. He discourses as follows: "I have a theory that most people catch cold at night after they are in bed, and it is to this fact I attribute a great deal of the violent colds, the bronchial catarrhs, and influenza which are prevalent at certain seasons of the year. The temperature goes down suddenly in the night, and persons without knowing it catch cold when they are asleep. This evil is to be counteracted, not by piling on a lot of heavy blankets, but by wearing thick, close-fitting, woollen garments, and also warm socks on the feet."

There is much truth in these remarks. Cold is often caught in bed, particularly by children, who are frequently restless and kick off their bedclothes, and the consequence is that if clothed only in a cotton shirt a cold is the certain sequel. Woollen garments should be worn at night as well as in the daytime. The old saw to the effect that it is desirable to feed a cold contains the germs of common sense, and it is in many instances beneficial to eat heartily during the course of a cold, for the reason that the process of digestion, by increasing the capillary circulation throughout the digestive tract, lessens the congestion of the mucous lining in other parts of the body. Finally, it can be laid down as an established fact that colds in most cases can be prevented by ordinary care and by adhering to the laws of hygiene.

Protection in France Against Foreign Medical Practitioners.

The Boston Medical and Surgical Journal publish the following letter from their Paris special correspondent:

"Pou may possibly have heard that the French have been legislating recently in such a way against foreign doctors that, as their law now stands, it is *impossible* for a foreign doctor to come and practice in France. To do so he must first take the French A. B. degree, and then go through the five-year curriculum. This means that he must spend about seven years in France before being allowed to practice, and this no matter who he may be, how well known, or what positions he may have occupied.

"You will see at a glance that this is practically a prohibitive law. Suppose, for instance, that your health broke down and you wished to come and practice in the south of France for the sake of the climate. It could not be done.

"I consider this law, although as you will see *it favors me*, preventing other men from coming here, as so contemptible that I think the men at home ought to take some notice of it, by legislating against the foreigners who shut us out—French, Germans, Swiss, and (soon) the Italians—and also by not sending their patients to French practitioners here or in the South.

"I think the action of the French authorities is one that is grossly unfair, and that in the long run, when the present men who are here die off, it is going to cause a great deal of annoyance and trouble to the travelling Americans. The Frenchmen never speak English, and you know that all their habits of hygiene and their care of the sick, as well as methods of treatment, differ widely from ours. The day will come, with the present law, when Americans will have no one to fall back on but these Frenchmen, who, whatever their merit may be, which I do not contest for a moment, will *never* get on well without Americans, and particularly with Americans ignorant of the French language. Fancy yourself, for instance, falling ill in Russia with no one but a Russian physician who didn't know English!"

A Paris Physician in Trouble.

The American Journal of Surgery and Gynecology publish the following regarding the case of Dr. Laporte:

There are some foreign gentlemen who are inclined to sneer at the average graduate of American medical schools, and to denounce them as poorly-educated and incompetent to practice medicine, and who hold up the great French, English and German schools as the only true source of medical light. Yet if the whole of America were to be diligently searched it is very doubtful if there could be found a single practitioner who would be guilty of an act such as that for which Dr. Laporte, of Paris, has been sentenced to three months' imprisonment. In truth, it seems scarcely credible that such an occurrence as revealed at the trial of this Parisian could take place anywhere in the civilized world in the last decade of the nineteenth century—a time when such progress is being made in the science of medicine; and so careful instruction given in methods for its practical application.

According to the court records, Dr. Laporte received his diploma in 1893, and failed to create a private practice up to Sept., 1897, at which time he established himself in a new neighborhood, and eleven days afterward was called to a woman several hours in confinement under the care of a midwife. He tried to apply the forceps with the legs of the patient extended flat upon the bed. After three attempts had failed, the midwife suggested application of the instruments in the proper posture, and later that another physician be called—both of which proposals were rejected, and the doctor decided to perform craniotomy. Having no instruments for this operation, tried a sharp mattress needle, which he took from a neighboring tool-chest, and without even washing it, introduced it into the vagina and give a hard push with no fingers near the point to guide it; it slipped from the head, punctured the bladder, and passed on into the peritoneal cavity. This mode of attack proving unsatisfactory, he next took a cold chisel and hammer from the chest and drove the chisel into the fetal head. At this point the woman's husband, who was angry, pulled the doctor away; when the woman. recovering from the anesthetic, had a hard pain and was delivered without further "assistance." She died three days later from septic peritonitis, caused by the dirty needle pushed through the bladder into belly. The court held that Dr. Laporte was guilty of negligence and grave errors—and that there had been on his part lack of intelligence, trifling, unskillfulness and ignorance of things which all medical men should know; therefore sentence must be imposed. But as he had never attended more than two cases of obstetrics, and never applied forceps and never seen a craniotomy, the lightest possible time under the penal code (three months) was given him. All this occurred in enlightened Paris in the year of our Lord, 1897.

Vaccination and Immunity in Erysipelas.

Pediatrics for January 1st 1898, contains a few practical points by Voges regarding Vaccination and immunity in erysipelas. He says:

Immunity against erysipelas will always play an important part in the history of bacteriology. because it is obtained in the human subject analogous to the immunity against small-pox, by treating the patient with a diluted virus obtained by inoculating a series of animals only slightly susceptible to it (rabbits). This method, recommended by Pasteur, although giving positive results, cannot be applied in practice, according to Voges, for the reason that not only are a series of pathological changes producad in the hog by injecting the active germs of erysipelas, and a further infection of the hog-pens may occur, as these germs undoubtedly pass out of the intestines of the hog with the feces in an active virulent state.

The same objection may be urged against Lorenz's process, passive immunization with the serum of a highly immunized hog, followed by active immunization with highly virulent cultures of erysipelas, as well as against a secret preparation. "Porcoson," prepared at the Farbwerke Friedrichsfeld, which contains the bacteria of erysipelas in pure cultures. Voges' conclusion is that up to the present time we are not yet in possession of a remedy against erysipelas which is available in practice. Concluding this critic he reports the experiments made by him to determine the manner of the action of the serum obtained from animals which had been immunized against erysipelas. These experiments are of interest for the reason that he has succeeded in establishing facts in favor of the anti-corpuscles of erysipelas, which are equal to those discovered by Pfeifer in favor of the anti-corpuscles of cholera; the specific active anti-corpuscles of erysipelas are active only in the animal and we have reason therefore to believe that an inactive, partly antagonistic formation of the antitoxin is changed into an active efficient modification in the animal economy. The action of the immunizing serum of erysipelas is bactericidal.

Influence of the Organism on Toxins.

Metchnikoff concludes says Treatment:

1. That the lower plants, like the fungi and bacteria, can destroy toxins and transform them into vaccins, but do not produce antitoxin.

2. That invertebrates are not capable of producing tetanus antitoxin in appreciable quantity.

3. That the production of antitoxin commences in the animal series in the crocodiles, in which this property is more developed than in the mammals.

Infantile Constipation.

Dr. J. Wellington Byers, of Charlotte, N. C., presented to the Section on Diseases of Children, at the Forty-eighth Annual Meeting of the American Medical Association, held at Philadelphia, Pa., June 1–4, 1897, the following, which are but a few of the many instructive ideas brought out in the paper. He said:

The purpose of this paper is to present some observations bearing upon that form of habitual constipation in infants which is, as I conceive it, associated with, if not ascribable to, defective conditions connected with the digestion and assimilation of certain elements in the food.

There are some reasons of an anatomic and physiologic character, why we should naturally expect to find constipation in infants of frequent occurrence. The muscular structure of the infant bowel is feeble and thin, and possesses but little capacity to propel the feces onward when they have once assumed consistency and bulk. The descending colon of the child is also longer than other parts of this bowel and readily permits of dilatation and sagging when there are accumulations within. From these physical and anatomical causes, together with the fact that the intestinal juices are very much lessened in children, we can easily perceive how constipation may be common in this class of subjects. I do not, however, desire to emphasize any of these agencies in the causation of the disease, but to point out others which to my mind constitute the chief factors in the production of constipation in infants.

So far as my own experience leads me, I have found infantile constipation to be almost exclusively associated with a purely milk diet and that nurslings were the most common of all. I have also noticed that the constipated baby of these nursing mothers received an overplus of milk as far as the abundance was concerned. In other words, that a baby getting too much milk was destined to suffer sooner or later from constipation. In the second class, in point of occurrence, came the infants fed upon sterilized or boiled milk, and the least of all were babies who were nourished on raw cow's milk or a mixed diet of starch and milk.

From this experience the conclusion came to me that there must be a real connection between the milk diet and constipation; that in some way the one caused the other. At first view, influenced by prevalent teachings on the subject, I was prepossessed with the idea that the casein in the milk was the disturbing factor. As long as I remained subject to this view I made but little progress in understanding the cases and had no results in their cure. You are doubtless familiar with characteristic stools passed in this condition when the baby is fed upon an exclusive diet of milk. They are the basis upon which has been erected the previous treatment of the disorder. A sugerficial examination of the stool shows it to be composed of large masses of whitish gray ashyy colored substance which has been designated casein. Most authors, transcribing from one another have so denominated these masses, and the statements have remained on record more from a failure to corroborate than from their accuracy. It was considered perfectly natural that the baby living upon milk would ingest more casein than it could digest and that these masses which came away in the stools were this surplus casein. The masses, moreover, were usually yellowish in their centers when crushed open and frequently manifested a cheesy odor. A failure to carry the examination farther has given rise to a number of false premises and bad methods. When these lumps are taken and placed in an open mouth vessel, such as an ordinary pickle bottle, and sufficient sulphuric ether poured in to properly cover them and the vessel then shaken for a little while, these masses so long regarded as undigested casein will have disappeared and there is formed an emulsified product, proving their nature to be fatty and not proteid. Having in this way finally settled the nature of these stools beyond dispute, it became necessary to carry the thought and investigation still further in order to ascertain the cause of this excessive passage of the fat and the failure of the organism to appropriate it. Clinical experiences in other conditions of the digestive tract will aid us here. It has been shown repeatedly that the very first step in the decline of the digestive functions of the child was an increase in the amount of the fat in the stools; that the primary stage in dyspeptic infants is a failure to use fat.

It was Wegscheider who pointed out several years ago, and Holt has incorporated the statement in his work, that the little yellowish masses passed in the stools of dyspeptic infants were not casein, as commonly thought, but fat. In the constipation with which I am now dealing there is an impairment of the agencies concerned, either in the digestion or assimilation of fat, or both. The fat appears as the chief constituent of the stool because of its rejection or failure to be appropriated. It produces constipation by its mechanical effects and the muscular impairment dependent on the contingencies of general malnutrition due to fat deprivation.

A large part of the so-called infant's foods or food attenuants, have been brought before the profession because of the supposed capacities to antagonize and modify what has been considered as casein. We should ever keep in mind the great fact that the real test of any food is not its digestibility, however important this may be, but the ability of the patient to assimilate and use it.

You are familiar with the fact that too little fat in the food will eventually be followed by the rickety condition, In attempting to form an adequate explanation of the condition I am now discussing, I believe we must turn to rickets to get a proper solution of these cases. You have all doubtless observed that the constipated baby is also subject to head and neck perspirations during sleep, that it has late opened fontanelles, cuts its teeth later than usual, and suffers also from bronchial disease and coryzas, has stridulus and resists disease of an acute character very poorly, although they are usually quite healthy in appearance or even fat. All of these symptoms point to rickets.

Another important, yet totally distinct cause which convinces me that the relations between the disorders is more than a mere analogy, and that constipation of this kind is really a phase of rickets, is that manifested in connection with the successful therapeusis of the cases. The treatment of both is essentially identical in character. What will aid constipation will also aid rickets, The formula devised by Dr. Lewis Smith, composed of cod-liver oil and lactophosphate of lime, when given to these children has invariably, in my hands, cured them and stopped tbe accumulations in the bowels. The ingredients of the prescription are not directed to conditions existing in the bowel or for their laxative effects, though I am not sure that the distinguished author saw the same relations which I now am attempting to point out. I believe the effect of cod-liver oil is to raise the nutritory changes of the child's tissues to a state where they will resume the assimilation of the fat taken in the milk. I do not consider the oil as chiefly beneficial because of its direct action as a laxative upon the bowels, for which purpose it is frequently given, though it does have some influence in this way. It to my mind promotes nutrition in a way which enables the child to use the food which is so essential to its health, which it before treated as a foreign substance to be rejected.

SUMMARY.—I have attempted to show that the constipated stool of the infant is fat, and not casein as commonly taught; that fat accumulates in the stools because of its non-assimilation by the organism; that this failure to appropriate the fat was evidence of the presence of rickets as shown by the corroborating symptoms; that the disorder was amenable to a therapeusis identical with rickets and the process of cure was one of restoring the powers of fat assimilation.

The Philadelphia Medical Journal.

Ever since the announcement appeared that Dr. Gould was to establish a new weekly medical journal in Philadelphia, we were interested in the enterprise, wanted to see the new Journal and a little anxious to see the review that it would receive at the hands of the present editor of the Medical News. Here it is:

The first number of the Philadelphia Medical Journal is at hand. Its appearance is pleasing, and its contents varied and interesting. The one new feature which is quite distinctive in a medical weekly is the method of abstracting articles from other journals. Instead of selecting leading articles, certain journals are chosen and brief abstracts of their entire contents are presented, after the new familiar method of the Medical Review of Reviews.

In its Announcement the declaration is made that "the Company is to be its own publisher, so that by sins neither of omission nor commission can commercial interests influence a line of the reading columns. By the advice of experts of national reputation the Journal will seek to draw the line against all nostrums in our advertising columns, in order that from cover to cover the best scientific and ethical standards shall be safeguarded."

This is indeed most commendable, and it will be interesting not only to medical editors, but also to the profession at large, to observe how this "band of experts" discriminate between "nostrums" and numerous proprietary preparations, some of which have already found a place in their advertising columns, and have thus received the stamp of their approval. In these iconoclastic days the birth of an ethical arbiter, such as the Philadelphia Medical Journal evidently aims to be, marks an epoch in the history of medicine.

The Medical News cordially welcomes the new journal to the sisterhood of medical weeklies, and predicts for it the meed of success which its enterprise merits and its unquestionable excellence will command.

Treatment of Burns.

Mr. B. Werner, in the Philadelphia Polyclinic, claims excellent results from the use of a moist antiseptic dressing in burns. The procedure recommended is as follows:

1. Place the burned member or surface in a carbolized bath of from two per cent. to five per cent., depending on the age of the patient and the extent of the injured surface. A threefold effect is gained by this—i. e., antisepsis, asepsis, anesthesia.

2. Remove all the acid solution by a second bath in the physiologic saline solution.

3. Dust the entire surface with a powder containing acetanilid (one part) and compound zinc stearate (five parts).

4. Cover surface with narrow strips of Lister's green protective, or, if economy must be studied, thin gutta-percha tissue can be used instead.

5. Place wet sublimated gauze, ten to twenty thicknesses, over and around the surface, followed by ordinary bandaging.

The subsequent dressings differ only in one or two points from the first, as stated above. The carbolized bath is substituted by one of either the saline solution or a weak solution of mercury bichloride, followed by a spray of hydrogen dioxide, which will aid in removing all the pus and loose dead tissues; after this the surface is dusted with the powder, and protective strips, gauze and bandages are applied. These dressings are changed as often as needed, the extent and depth of the burn making its own rule, usually known by the amount of drainage and odor.

The advantages of this treatment over and above that of lotions, oils or salves are: freedom from any accumulation of fats with dead epithelium, encouragement of a healthy epithelial granulation under a clean moist dressing, the Lister protective serving in the double capacity of preserving the new epithelial cells and as a temporary integument.

By this method cicatricial deformities are lessened and pain diminished.

Albuminuria of Dyspepsia.

Robin divides functional albuminurias into those of nervous, hepatic, alimentary, and dyspeptic origin. (Treatment, Dec. 23d, 1897).

He met with 300 cases of dyspeptic albuminuria out of 1,600 due to other causes.

He says they are easily distinguished from cases of albuminuria of renal origin.

The patients are, as a rule, much wasted, nervous to the point of neurasthenia They have gastric pains and borborygmi. The gastric juice contains free hydrochloric acid, acids due to fermentation of organic substances, and albumen not coagulated by heat. The liver is enlarged, and the patients suffer from constipation. Albumin appears in the urine only after meals, and varies with the nature of food taken. It disappears generally after rest in bed. The urine contains also a marked excess of earthy phosphates, and indican (a sign of intestinal fermentation). Pulmonary æration is below normal; the quantity of oxygen absorbed is deficient.

The condition is not due to the formation of toxins in the stomach, for chemical examination of the gastric juices does not reveal the presence of alkaloids, and intravenous injection of them into rabbits is not followed by ill results.

Dyspeptic albuminuria appears to be caused by ingestion of albumin incompletely transformed by the digestive juices. Albumin in such cases cannot be oxidised because pulmonary æration is deficient, and cannot combine with mineral salts. It therefore acts as a foreign body, which has to be eliminated.

If taken very early such cases improve. If left to themselves they lead towards Bright's disease. There is no absolute rule of treatment. One may try milk, or vegetables, or flesh diet, and that which supplies least albumin is evidently the diet to be adopted.

Ameboid Bodies in Blood of Vaccinated Children.

Dr. Walter Reed after careful experimentation concludes: (American Medical Bulletin.) The claim of L. Pfeiffer that small granular ameboid bodies are present in the blood of vaccinated children and calves, and in the blood from the cases of variola during the stage of fever, is confirmed. A nucleus has not been positively made out in any of these bodies. Granular ameboid bodies, having a diameter of about one-third that of a red blood-cell, appear also in the blood of the monkey during the active stage of vaccinia, and disappear with the decline of the local inflammation. A body of like appearance, granulation and size may occasionally be found in the normal blood of monkeys and children. Pale ameboid bodies, containing a few dark pigment-like granules, are present in the blood from cases of variola and in the blood of the variolated monkey. Bodies of like appearance may occasionally be found in the blood of vaccinated children and monkeys.

Death of the Fœtus in Utero from a Gunshot Wound, with Recovery of the Mother.

Dr. S. W. Robinson (Lancet, Oct. 23d, 1897,) describes an interesting case, as follows;

While on a pleasure trid one morning in the Province of Corrientes, in the Argentine Republic, he was called to see a young woman who had been shot in the abdomen. She was eighteen years old and had been married eight months. The author found her lying on a bed, but with very little expression of shock or suffering. An examination revealed a bullet wound, made by a fair-sized ball, a little to the right of the umbilicus and slightly below. There was no bleeding more than an odd drop of venous blood for a radius of two inches round the wound; there was extravasation of liquid in the tissue, and at the time thought to be blood, but now believed to have been amniotic fluid. The abdomen was very pendulous, as is generally the case with the peasantry of these parts.

The author gave her opium, and sent for instruments in case of necessity. About an hour afterward labor set in and went on slowly until two o'clock the next morning, when, the woman being fairly exhausted and the pains weak, the os being sufficiently dilated, she was delivered by long forceps. The post-partum hæmorrhage being very sharp, there was no time to examine the child, which had already begun to decompose. The hand was next passed into the uterus, and an opening in the anterior wall could be distinctly felt, with a part of the membranes prolapsed and held tight in the same. This no attempt was made to loosen, but the membranes were torn off close to the uterine walls, and the hand withdrawn with placenta which was loose in the cavity. The uterus was washed out with hot antiseptic solution (creolin), and ergot was given. On examining the child, which was at almost full time, it was found that the ball had entered the right shoulder by the junction of the acromion process with the scapula, and had come out on the left iliac region, drawing with it a coil of small intestine which was not wounded.

As there was but one wound perceptible in the uterus, the question arose: Where had the ball gone to? However, this was easily settled, as, on examining the clots, etc., it was found in the *debris*. The mother made an uninterrupted recovery, her treatment consisting in the application of iodoform to the external wound, which healed without suppuration, as all wounds do which have been made by a bullet having a great velocity (this one had been fired at a distance of three metres), ordinary antiseptic treatment being used. The uterus was washed out twice a day with a solution of creolin.

Endometritis of Pregnancy and Its Cause.

Scheunemann says that it has recently been frequently attempted—usually with negative results—to prove that micro-organisms are the cause of chronic endometritis. (Edinburgh Medical Journal.) One is very apt, in accordance with the view of Veit, to refer back the endometritis of pregnancy to a chronic endometritis already existing before conception, and through this to bacterial origin. But Emanuel has been the first to make a positive demonstration of the presence of bacteria in the endometritis of pregnancy. The case in question is that of a woman who aborted three times in quick succession.

An examination of sections from the first and third abortions demonstrated the presence of numerous, intercellularly situated swarms of diplococci, which in both cases bore a striking resemblance to one another; whilst in the second abortion the bacteria demonstrated in the sections, as well as by cultures, were looked upon as the exciting cause of the attendant inflammation, and by this means of the bringing about of the abortion.

The examination of the ejected gestation-sac in the third abortion showed an exactly similar condition to that found in the previous miscarriage. The macroscopical appearance of the ovum was of an intense yellow color. A microscopic examination demonstrated in the decidua vera numerous foci of small-celled infiltration with extensive hemorrhagic extravasation into the surrounding tissue; whilst in the decidua serotina, near the surface, these foci of small-celled infiltration showed necrotic areas in the middle, a sign of especially intense inflammation.

Eight weeks after the third abortion a curettement had to be performed upon the patient, on account of bleeding, and the pieces of tissue obtained were most carefully examined.

It was shown in this way that both in culture preparations and in cut sections micro-organisms were not now present, but, on the other hand, there was present in the mucous membrane the signs of chronic inflammation, not only in the glands, but also in the interglandular tissue.

The demonstrated diplococci are looked upon, therefore, as the cause of the endometritis of pregnancy, and through this means, as the immediate cause of the abortions. His case demonstrates further that the endometritis of pregnancy, which, in confirmation of the opinion of Veit, had surely been present from the beginning of conception, passes on into a chronic endometritis.

Antitoxin in Diphtheria.

The reports on the use of antitoxin in diphtheria which have appeared during the year have continued to show a reduction in mortality amounting to the saving of thousands of lives by this invaluable product of modern medical science. (Boston Medical and Surgical Journal.)

The second report of the collective investigation of the American Pediatric Society on the antitoxin treatment of laryngeal diphtheria in private practice, gave the results of 1,704 acceptable cases of laryngeal diphtheria in which antitoxin was used. Of this total nearly 61 per cent. were not operated upon, and give a mortality of 17.18 per cent., a result which, though good, the committee rightly believes can and ought to be improved upon. Of the cases operated upon the mortality was 27.24 per cent, The mortality in both classes of cases it is believed might be reduced were the standard of the antitoxic serum assured, and were both physicians and friends of patients less timid in its use.

The report of the Imperial German Board of Health upon the use of diphtheria antitoxin in the hospital in the German Empire from April, 1895, to March 1, 1896, published early in 1897, showed a fall in mortality from an average of 26.7 per cent. in 157,724 cases treated in the twelve years from 1883 to 1895, to 15.5 per cent. in 9,581 cases treated during the period mentioned above.

Every additional contribution to the statistics of the treatment has confirmed the fact which was demonstrated when the diphtheria antitoxin first came into use, that the prospect of success in a given case depends very much upon an early beginning of the treatment.

The mortality from diphtheria and croup in Massachusetts from 1891–94 had been 28.3 per cent. in 13,332 cases. The mortality in 1,209 cases since antitoxin has been employed has been about 13.5 per cent.

The report of the Metropolitan Asylums Board of London on the antitoxin treatment during 1896 shows that the favorable results which were reported during the first year of the use of antitoxin have been maintained.

The report closes with the following conclusions as to the effects of the treatment arrived at by all the signatories except one:

1. A great reduction in the mortality of cases brought under treatment on the first three days of illness.
2. The lowering of the combined general mortality to a point below that of any former year.
3. The still more remarkable reduction in the mortality of the laryngeal cases.
4. The uniform improvement in the results of tracheotomy at each separate hospital.
5. The beneficial effect produced on the course of the disease.

All other reports from whatever source have confirmed the value of the antitoxin in diphtheria.

Insanity in Prisons.

The Hospital editorially considers that the relations existing between insanity and crime is a matter of great interest, as pointing to "degeneracy" as a main factor in the making of the criminal; and, in consequence of the persistently repeated assertion that our prison system conduces to insanity. The annual report of the Commissioners and Directors of Prisons for the past year shows that of the total number of insane, viz, 380, dealt with in local prisons during the year, 216 were either remanded for observation, being of doubtful sanity on committal, or they were not convicted, or they were found insane when brought to trial. So far, then, as concerns the influence of prison life in the production of insanity these cases may be left out of account. Of the remaining 164 cases, 34 were recorded as having been previously insane, and 121 were insane on reception. Only 43 out of the whole number could be fairly looked upon as cases bearing upon the question of the influence of prison life in the production of insanity. An analysis of these cases shows that, in 19 out of the 43, symptoms occurred within a month of their reception, and that out of the whole local prison population only five cases of insanity arose after the completion of six months' imprisonment. It is unnecessary to point out how strongly these figures speak in favor of the view that the treatment which the prisoners undergo is not the cause of the insanity by which as a class they are afflicted. Drink, insanity, and crime are inextricably mixed together, each aggravating the other. Hereditary taint not only causes actual insanity but produces an even larger amount of mental instability of varying degree. In many cases it is mere chance circumstance which decides whether a man's want of control over his impulses shall first show itself by drunkenness, by thieving, by assault and battery, or by insane behaviour. Drinking and law breaking are but too often merely first symptoms of mental defect, and although that fact by no means lessens the necessity of punishing crime it certainly is sufficient to take away all surprise at the prevalence of insanity in our gaols.

The Physics of Ether and Chloroform Narcosis.

Dowd, at a recent meeting of the Med. Society of the county of New York, stated (Med. Record):

If a person inhales an anæsthetic having its point of maximum evaporation at 59 degrees F., less will be introduced into the blood than if the anæsthetic has a maximum evaporation of 149 degrees F.—e. g., chloroform. If the maximum evaporation of the narcotic approaches the temperature of the body the lungs alone are capable of regulating the elimination, so that exactly as much is exhaled during expiration as was inhaled during inspiration. This explains a fact that deep narcosis cannot be produced if the maximum of evaporation of the narcotic and the temperature of the body correspond. If, however, the maximum evaporation is 149 degrees F., more of the anæsthetic is absorbed in inspiration than is eliminated in expiration. It must, therefore, be eliminated somewhere else—the heart, kidneys, and liver must be called into action; and this explains why the after-effects on these organs are so much more pronounced after chloroform than after ether. Sulphuric ether having a maximum evaporation of 93 deg. F., at a temperature of 100.4 deg. F. it must expand and distend the pulmonary alveoli. It is this obstruction to respiration which causes a certain degree of cyanosis. Another result is the secretion of mucous and the frequent occurrence of secondary pneumonic infiltration. The pressure of carbonic acid accumulating in the blood partially overcomes the tension of the ether vapor in the alveoli and permits its escape; then the cyanosis disappears and the true ether narcosis begins. It is the slight excess thus remaining in the blood which suffices to affect the brain and produce unconsciousness. Death from ether on the operating-table, therefore, is almost impossible as long as respiration is efficient. On the other hand, it is evident why ether narcosis sometimes has such deleterious effects on the lungs. On account of its high boilingpoint chloroform is absorbed by the blood to a greater extent than needed, and in leaving the organism overtaxes all of the parenchymatous organs. Ether, on the other hand, is converted into vapor so rapidly when inhaled into the lungs at the temperature of 100 deg. F., that it would not enter there at all if the alveoli did not first become overfilled with carbonic-acid gas. From the forogoing considerations it is evident that a safe narcotic would be one in which the amount elimenated during expiration would almost equal that absorbed during the previous inspiration.

When Shall an Hysterectomy be Performed for a Puerperal Infected Uterus?

Dr. Louis Frank, in discussing this subject asks: Why shall the abdomen be opened in puerperal sepsis? When shall an hysterectomy be performed for a puerperal infected uterus? There is no other operation which the surgeon should consider so carefully as the removal of the uterus following childbirth. There is a time when it must be done, and when the indication is very clear. When this becomes so, the patient is usually in an extremely septic state; the infection has reacht its maximum; vitality is very low, and the chances of a successful operation are correspondingly diminisht. It is a grave matter to remove the uterus before one is absolutely assured of its necessity; still, beyond question, it sometimes becomes necessary, and should be done early. There may not be tubal disease, the infection may be confined alone to the uterus. Infection often extends into the uterine muscularis through the lymphatics; there may be foci of pus in in the walls of the uterus itself or subperitoneally; there may be a large area undergoing septic degenerution which has begun in the lining membrane of the uterus, which it is impossible to remove by any minor operation. Such uteri, which should be removed, undergo involution very slowly; they remain large, tender to the touch, usually soft, having a boggy feel upon bi-manual examination; the patient's temperature continues above the normal; there are rigors or chilly sensations; distension of the abdomen or slight tympanites—all the symptoms of a sepsis, which we know from the local manifestations arise from the uterus. It is assumed that we have already resorted to our minor procedures—irritation, peroxide of hydrogen and other antiseptics locally, etc., still the woman grows progressively worse. If radical measures are not carried out in this stage, the disease will soon extend beyond the uterus, infecting the peritoneal cavity, but by early operation the woman has a good chance of recovery.

Are Athletes Healthy?

The athlete is so popular a person that we need not be surprised at the interest taken in the question, Is he healthy? If by an "athlete" is meant a "trained" man, one answer to the question is immediately obvious, viz., that whether he is healthy or not his health is not due to his training. If a demand arose, as in fact it does arise in military service, for men of endurance, of considerable muscular strength, of great and varied digestive capacity, able to bear exposure, starvation, and attacks of infectious illness with the least possible disturbance, and all the time fit for the exercise of the highest intelligence, then the training which produced such men would without doubt be conducive to health. But the training which athletes undergo does not even aim at such a condition. Its whole object is to produce the greatest possible output of muscular energy, to apply it with the utmost exactitude in a given direction, and at the same time to develop a state of body as to weight, &c., which shall conform to certain rules. The routine by which these results can be most readily obtained is, no doubt, effectual for its purpose—but that purpose is not the production of health. An athlete, then, although often a very healthy man, by no means obtains his health by virtue of his training. Quite the opposite, in fact. Those who by build and constitution require severe regimen and training to make them fit for athletic work, and who drop out of condition as soon as they cease to train, may really suffer in health from the process—in the case of jockeys and others who train for weight they often do suffer very severely—while others who are always fairly fit may even benefit by the course. But when we come to consider what, in these record breaking days, an athlete has to do both in his "sports" and in his practice (if we may draw a distinction between the practice and the regimen of his training), we are quite clear that the life of an athlete does not tend to health. We quite admit that a large number of healthy middle-aged and even old men are to be met with who have ardently indulged in athletics in their earlier years, but the fact that athletic sports are chiefly attractive to the strong and healthy makes the athletes so select a class that no comparison can be fairly drawn betwen them and the average man. Athletes are healthy because they are select, not because they are athletic. On the other hand, when we come to compare them with the average men we must remember that average men have many vices. We would not urge a young man to become an athlete in the modern sporting sense, but perhaps he had better even do that than oscillate between the office, the billiard-room, and the whiskey bar.

Malarial Hematuria.

Meek, in New Orleans Medical and Surgical Journal, says: Give hyposulphite of sodium in one drachm doses every two hours until the patient is thoroughly purged; then continue in smaller doses, until the system is saturated with it.

Give morphine and atropine, hypodermatically, sufficient to quiet stomach; also blister epigastrium if necessary.

Give an abundance of water to wash the coagula that must necessarily accumulate in the urinary tubules after a hemorrhage: hot water or hot lemonade is frequently better borne by the stomach than cold; cupping over loins is also to be recommended.

The diet should be mild. Fresh buttermilk is usually well borne by the stomach, and is also a mild diuretic, and I have come to rely on it as an article of diet in this as in many other diseases.

Keep the patient in a strictly recumbent posture.

I give hyposulphite of sodium in this affection for the following reasons: It is a stimulant to the hepatic secretion, causing in large doses abundant biliary secretion, and is also a valuable intestinal antiseptic. I believe free sulphurous acid is disengaged in the blood, and that this agent is an antizymotic to such an extent that it destroys the micro-organism which is the real cause of the disease, and thus arrests the process of corpuscular disintegration.

Labour in Mature Primiparæ.

De Koninck has compiled an instructive memoir on labour in primiparæ married for some years and relatively mature (British Med. Journal). He gives 30 as the earliest year coming under "maturity," the "primipares agées" of French authorities. He sets aside as curiosities certain cases of primiparæ almost "aged" in the English sense of the term, such as Cohenstein's two women aged 50 and Steinmann's woman aged 52. It appears that in a genuine uncomplicated case of delayed impregnation the advent of the catamenia is always found to have occurred late in youth, Out of 401 such cases menstruation was retarded till 20 in 39, till 24 in 4, and till 26 in 1. As to the retarded first pregnancy, abortion, ectopic gestation, twins, and special renal mischief are relatively frequent. Above all, lingering labour is specially common, statistics even exceeding guesses and *a priori* reasoning in this respect. In 12 out of 17 noted by De Koninck labour lasted from forty to fifty hours, the remaining labours being yet longer; 1 exceeded ninety hours. Feebleness of uterine contraction is absolute from first to last, and independent of any obstetrical combination. They also cause far more physical and mental exhaustion than the vigorous contractions of a young uterus, and at the same time are more painful. There are discrepancies in the "pains" seen in mature primiparæ of the same age, probably homologous with the great variations in the age of the menopause observed in otherwise normal women. The uterus may be older in one woman aged 35 than in another of the same age. The forceps and other obstetrical operations are often required in the mature. Most of the above facts are easily explained. The excess of male infants borne by mature primiparæ (30 per cent.) is a less explicable phenomenon. Hecker considers the predominance of male infants as a speciality of all primiparæ, but Rumpe turns attention to the fact that in a family of children the predominance of males is commoner the further the mother is from her first menstrual period.

Active Treatment in Paretic Dementia.

Godding reports encouraging results in the treatment of paretic dementia by cold wet packs, always accompanied by cold to the head in the form of an ice-bag or wet towel. (British Medical Journal, Nov. 13, '97.) The duration of the pack is from one to three hours. The pack is followed by massage and sometimes by a brief douche. This treatment need not interfere with special treatment, such as iodide or mercurial inunctions. Whatever may be the permanent effect, says the author, there is generally marked benefit, calming excitement, promoting sleep, removing suddenly occurring mental confusion and excitement of vascular origin. Of seven patients subjected to treatment, three died and seven are now living. Of the latter, two appear perfectly well at the present time; two are much improved; two are somewhat improved; and one shows no improvement.

Briefly the details of a cold wet pack, as used in this treatment, are as follows: Use as many blankets as are considered necessary to produce a good reaction in your patient, placing one blanket above another smoothly spread out upon the bed; over all place a linen sheet wet in cold water and lay the patient on that. In wrapping the sheet about him take care to separate adjacent parts, as arms and legs, from the body by folds of the sheet; then wrap in the blankets, tucking closely fold by fold. The patient's head should be wet before he lies in pack, and after he is comfortably bestowed in it a wet towel should be wrapped about his unless an ice-cap is deemed better. If patient is very feeble and temperature of the surface subnormal more blankets will be required, or perhaps hot bottles at feet. As a cardio-vasular tonic the effect of the pack is enhanced in suitable cases by a short fan douche, beginning with a temperature of 70 degree F. for five seconds and lowering temperature one degree each day, following this with friction to the reaction-point. Message is usually given one-half hour after pack. In cases of active excitement the patient may be taken from the pack, rubbed or douched, and put directly back. This while the excitement lasts, which under this treatment is seldom beyond twenty-four hours. If pyrexia is present it should be relieved by cool bath or short packs, with light covering, before the pack, as above detailed, is given, otherwise the pyrexia is aggravated. Temperature should be taken twice a day, and rise promptly met by ice to the head. Bowels should be carefully attended to to avoid autointoxication.

Treatment of Endometritis in Bromine Vapour.

Nitot maintains that the correct prophylactic treatment of parenchymatous metritis and chronic salpingitis consists in rapid cure of recent endometritis, which is the starting point of those troublesome diseases. To ensure cure a remedy is needed which can penetrate to the deepest recesses of the mucosa, and even the tubes, without dangerous effects. Caustics and fluid preparations do not possess such properties. A gas is required, and it must be freely diffusible, antiseptic, and capable of acting on the epithelium so as to modify without destroying them ("anticatarrhal action"). Bromine emits gas with the necessary qualities; a saturated aqueous solution should therefore be placed in a bottle with double tubing like an ether spray or the chloroform bottle in a Junker's inhaler. A hollow sound, connected with one tube, is passed into the uterus, whilst the solution is made to bubble by pressure on a ball connected with the second tube. Thus vapour is propelled into the uterus. Nitot claims the best results, and notes that the advantages of gaseous diffusion over intrauterine injections or other medication are self-evident.

Ether Narcosis in Infancy.

Demme has pointed out that ether narcosis is not safe during the first years of life, as it is apt to cause irritation of the mucous membranes, bronchitis, broncho-pneumonia and vomiting; furthermore, the stage of excitation is said to last longer than in chloroform narcosis, and therefore very excitable children are hard to etherize. (Pediatrics, January, 1898). We often meet with shaking spasms; the awakening is not as quiet as after chloroform, and is frequently followed by vomiting, anorexia, and an irritable condition for thirty-six to forty-eight hours. For these reasons chloroform has been preferred as an anesthetic for children until recently, when a change of opinion has taken place. The surgeon at the present time concedes that ether is safer than chloroform. Stoos lost faith in the safety of chloroform narcosis in children since he saw the occurrence of chloroform collapse after its use in children. There are cases of dea.h even reported from this cause. Ether does not irritate the mucous membrane of the trachea and the bronchi in small children more than chloroform. Children suffering even with a slight cough may be etherized without harm. A severe catarrh or disease of the lungs is of course a contraindication to its use. It has been claimed that profuse salivation occurred in children and therefore the period of teething, in which salivation is increased, was not a suitable time for administering ether. Stoos has not had this experience. Intense salivation is usually caused by an existing coryza. The children should be placed horizontally, with slightly raised head, and turned to one side to facilitate the flowing off of the saliva. The assertion that the beginning of etherization is more difficult, slower and more unpleasant, the stage of excitation greater and longer than in chloroform narcosis, is without weight if the ether is properly administered; within two to five minutes relaxation of the muscles is obtained. Nausea and vomiting do not occur more frequently than after chloroform narcosis. As a preparation to the administration of ether the stomach should be kept empty and a clysma may be given. Ether narcosis should be preferred to chloroform on account of its lesser danger. Rehn mentions that in the Frankfort City Hospital ether is now preferred to chloroform in children.

Dangers of the Nasal Douche.

Lichtwitz deprecates the routine prescription of the nasal douche in all cases of hypersecretion of the nasal mucous membrane. (British Medical Journal, January 1, 1898.) Irrigation is called for only when the nasal fossæ require clearing of pus and crusts, for instance in idiopathic ozæna. This affection is mainly limited to the nasal fossæ properly so called, and irrigation is in such a case the most fitting form of procedure. An ordinary syringe, or enema syringe with suitable nozzle should be used. In all other nasal affections irrigation is inadequate or useless; it is even dangerous. Repeated flooding of the mucous membrane may give rise to olfactory lesions. Antiseptics are highly injurious, and pure water is badly borne; the physiological solutions of sodium chloride, sodium bicarbonate or sodium sulph. are the only harmless liquids. In numerous cases irrigation has caused the sense of smell to be temporarily or permanently diminished or lost. Distressing occipital or frontal headache may result, owing to the liquid passing into the sinuses. The injection of irritating liquids may even set up inflammation of these cavities. The most skillful and careful irrigation is insufficient in many cases to prevent the resulting headache. A very grave complication is the penetration of the liquid into the middle ear, suppurating otitis media occasionally supervening. In acute coryza, especially in children, douching should never be practiced. In one such case known to the author mastoiditis followed the irrigation of the nasal cavities. The predisposition to otitis is increased after ablation of adenoid vegetations. For eight years the author has given up all irrigation after pharyngotonsillotomy, and during that period has met with no case of post operative complication.

Germs in Butter.

The Louisville Medical Monthly, in discussing the subject, says:

It is very generally known that milk furnishes an excellent medium for the growth of bacteria; but more important than this is the fact that, from its very general use it affords one of the most dangerous vehicles for the dissemination of diseases. This undesirable property is also shared by butter

An appreciation of this fact should at least lead the consumer to investigate origin and manner of prepartion of the butter supplying his table.

According to recent researches, there were contained in one dram of butter (as much as the point of a knife would hold) 2,465,552 micro-organisms in that from the pat, and as many as 47,250,000 on the outside. Thus it is not exaggerating to state that the number of organisms swallowed in eating a moderately large piece of bread and butter would exceed the entire population of the Western hemisphere.

Butter may contain varieties of bacteria which are of themselves harmless as regards life; but, on the other hand, it often affords a convenient vehicle for conveying pathogenic germs, as those of typhoid fever, scarlet fever, measles, tuberculosis, etc. The first three may be obtained from contaminated water which has been used for cleansing purposes in the preparation of the butter, and the latter be derived from the milk of a tuberculous cow. Two other varieties of bacilli have been isolated and described, and were found to be constantly present in the butter.

Butter kept in a refrigerator showed a marked reduction of the number of bacteria; but the great majority of consumers of butter are without refrigerators or ice; hence during warm weather abundant opportunity is given for the growth of the germs. The danger may be somewhat obviated by boiling the butter; but as this renders it unpalatable, a better method is to sterilize the milk before the butter is made. Too little attention is given to this subject by sanitary authorities.

Cinnamic Acid in the Treatment of Tuberculosis.

T. Heusser says that two hours after intravenous injections of cinnamic acid an increase of white corpuscles in the blood commences, which subsides at the end of twenty-four hours. (Medicine for January, 1898.) In tuberculosis, aseptic inflammation develops around the tubercular center, and in the third week a wall of leucocytes has formed around it, cutting it off from the surrounding tissues. Simultaneously the leucocytes commence to penetrate the necrotic tissues, and the bacilli, at the end of a few months, become difficult to detect and disappear completely.

Heusser has treated twenty-two patients with cinnamic acid, injecting it into the gluteal region. In six cases, or 27.25 per cent., the lesions healed completely; twelve cases or 44.54 per cent., were improved; one patient died; and in three cases the treatment was without result. Of the cases cured three belong to the class of chronic tuberculosis, with no cavities discernible, but numerous bacilli and moderate evening temperature; and three to cases with cavities without increase of temperature. Of the twelve cases improved, three belong to the first class and nine to the second.

The cinnamic acid is employed in the form of an emulsion, and the first injection consists of a minim and a half of a five per cent. emulsion. They are made every second day unless the patient exhibits some unusual reaction, and the maximum dose is fourteen minims, which amount is administered every second day for several months, or until the patient presents no further symptom. Immediate effects from the injection do not present themselves. At the most there is a slight burning sensation at the site of the puncture. The patients often feel depressed, and, in rare cases, Heusser has observed congestion of the head and dizziness. After from two to four weeks of treatment there is an increase of appetite and weight. The fever is reduced and the cough and expectoration diminished. He has never noted evil consequences, though temporary drawbacks may occur.

Beri-Beri.

The Journal Am. Med. Association, under this heading, says:

Beri-beri is in the Dutch Indies one of the most pernicious diseases. It does not lead to death immediately, but ends in a general or particular paralysis of the limbs, hands and legs. There was no cure of it, however, till now. The disease had been noticed first at Abjeh, but among the many hundred men sick of beri-beri and brought to Batavia there were found many European soldiers. The infectious matter was then derived from the soil, which had been thrown up and ploughed through by military works. About 1885, when the plague seemed to dissolve and lessen the army, Professor Pekelharing, from Utrecht, a renowned bacteriologist, was sent to Abjeh to study the disease even in its place of birth, to find out its bacilli, and, if possible, also a cure against it. In these directions Professor Pekeleharing failed entirely. He returned without any result, and the disease went on. Now, Dr. Eykmann, physician in the Dutch military service, seems to have been happier than his colleague and countryman. Dr. Eykmann conceived the idea that beri-beri had nothing to do with the soil, but with the food given the soldiers. The natives there live on rice as their exclusive food, and the Europeans also in these regions take to it. Now Dr. Eykmann had marked that those soldiers were taken with beri-beri who got the Saigun rice, but those who fed on the native "red" Sumatra rice remained healthy. In the prison at Sourabaya he found likewise that while on July 1, 1896, 99 prisoners out of 800 had been caught by beri-beri, this cipher fell to 86, 82, 43, 21, and 13 during the next month on account of giving the Sumatra rice instead of the Saigun rice. Surely Dr. Eykmann's theory has not yet any scientific foundation, but a mark is found and a practical sign, which no doubt will lead us sooner or later to the discovery of the growth and evolution of infectious material in the human body.

The Treatment of Gonorrhœa in Women.

Marshall, in Treatment, points out the incompleteness of vaginal douches as a form of treatment for purulent vaginitis, and states that the treatment is much more likely to be followed by complications of the disease than is the case when more radical and rational means are employed. He also compares the clinical study of purulent vaginitis of venereal origin (gonorrhœa) with the recent observations of German surgeons obtained by bacteriological investigation.

The author states that it is almost impossible by vaginal douching to treat the whole of the vaginal surface; first, because the fluid seldom reaches the *cul-de-sacs* surrounding the cervix, and so leaves the upper end of the vagina untouched; secondly, the vaginal rugæ are not distended, and so the furrows between the rugæ are not properly reached by the fluid. What is required is a form of treatment which will obviate these difficulties, and start by treating the upper portion of the vagina, and also, as far as possible, distend the rugæ. This may be done by three methods: (1) application of lotions, such as silver nitrate, through a speculum to the whole of the vaginal surface; (2) plugging the vagina with wool tampons, soaked in medicated fluids; (3) medicated pessaries, the best of which are the gelatin-glycerin.

The Use of Silver Nitrate.—As regards treatment proper, he found it practically impossible in a case of acute vaginitis to apply it without an anæsthetic; the irritation produced is often as bad as the vaginitis itself. Either of the following methods is, therefore, much to be preferred.

The Wool-Tampon Method.—This consists in passing through a Ferguson speculum plugs of wool soaked in a glycerin solution of the required drug or a glycerin emulsion. A useful addition to this consists in lubricating the speculum with a vaselin preparation of the same drug, whereby the rugæ of the vagina are distended by the speculum and at the same time lubricated by the drug. Two or three fair-sized plugs are usually sufficient. This treatment should be repeated daily, the vagina being irrigated before each application.

The best drug to employ is a matter of opinion. Dr. Marshall has had good results with naphthol, in the proportion of 2 per cent. The naphthol is dissolved in a sufficient quantity of rectified spirit and mixed with the glycerin. This has the objection of being an irritating application, chiefly on account of the spirit. A less irritating fluid may be obtained by adding an equal quantity of water, which precipitates the naphthol as an emulsion. A glycerin solution of ichthyol (2 to 5 per cent.) is also good. Glycerin of borax may also be used, or glycerin of perchloride of mercury (1 to 500.)

In many cases the inflammation is too acute to enable one to pass a speculum. In such cases it is best to use a vaginal douche for a few days till the vagina is less sensitive. (The douche he uses for this purpose contains a drachm each of sulphate of zinc, acetate of lead, and borax, to the pint, with an ounce of glycerin.)

The Treatment by Pessaries.—He has, for some time, given up the tampon method in favor of this, which is less painful and equally efficacious. Gelatin-glycerin is the best basis for the drug, being much superior to oleum theobromæ. In hospital practice he uses those made in one-inch test-tubes. When required for use the test-tube is placed in hot water till the pessary slides out, and is then passed up a speculum; by regulating the amount of melting various sizes can be produced. These pessaries gradually melt and lubricate the vagina with the drug used. For private practice these pessaries may be made in ovoid molds and kept ready for use.

As regards the drugs used, he has tried the following: Iodine, ½ per cent.; ichthyol, 2-5 per cent.; perchloride of mercury, 1 in 500; argonin, 5 per cent.; lysol, 2 per cent.; formalin, 2 per cent.; airol, 10 per cent.; naphthol, 2 per cent.; copaiba resin. The best results have been obtained by iodine and ichthyol. Argonin, airol, naphthol, and copaiba have the objection of being in suspension and not in solution. Lysol is fairly good, but formalin too irritating.

The pessary treatment is, he believes, by far the best for vaginitis; by this means, and also by the tampon method, the upper vagina is well treated, and hence the liability of endocervicitis and endometritis by extension of the inflammation is much diminished. He has seen many cases treated only by douching, where the cervix and upper vagina were still inflamed, although the lower part of the vagina was healthy. Endocervicitis is a frequent result of cases treated by douching, but so far as he has seen, much less common after either of the above methods.

Campbell, writing in the Physician and Surgeon, asserts that deafness in childhood may be conveniently considered under three heads.

1. Congenital defects, or affections of the internal ear or auditory nerve occurring in the course of cerebro-spinal meningitis or other intra-cranial diseases.

In these cases we usually have a complete and permanent abolition of the function of the ear, leading to deaf-mutism. Being permanent and entirely unaffected by treatment they need not be further considered here.

2. Acute and chronic suppurative otitis media.

This class of cases is not now neglected as it formerly was, and the saying that it will not do to check the discharges from a suppurating ear because it would be determined to some other organ, as was said by the laity, or that a discharging ear acts as a safety valve, as has been said by the profession, is now a relic of the past. In consequence of increased knowledge on the part of the average medical man, we are seeing fewer and fewer of these intractable, disgusting, and dangerous cases of chronic suppurative otitis media, with their foul smelling discharge. Yet these cases are seen still, and are often the logical outcome of neglected pathologic processes beginning during childhood.

3. Acute and chronic catarrhal otitis media.

By this term is meant those cases characterized by a low form of catarrhal inflammation affecting the mucous membrane lining, the Eustachian tube, and tympanic cavity, being complicated by, and having its origin from, a similar inflammatory action going on in the nasal, naso-pharyngeal and pharyngeal mucous membrane.

In all of these cases two features are recognized as producing the dimunition of hearing and the changes which finally make that diminution a permanent thing, namely: (1) The extension of the inflammation and thickening into the mucous membrane lining the tympanic cavity, and (2) the obstruction to the function of the Eustachian tubes, in consequence of which the conducting apparatus is immobilized and finally made permanently so.

Gastro-Jejunostomy in Gastrectasis.

Dr. Cordier, of Kansas City, presented to the Mo. State Medical Society, a paper with many instructive features. The following are a few of the deductions:

1. Cancer of the pylorus, even though removed, returns quickly, and always kills.

2. Pylorectomy is attended by a high mortality and is not justifiable surgical procedure in advanced carcinoma of the pylorus.

3. Gastrectasis due to a malignant closure of the pylorus is best treated by a gastro-jejunostomy.

4. The operation as advised by Von Hacker best meets the indications.

5. It is not necessary to twist the bowel, in making the anastomosis, to prevent the bile from entering the stomach.

6. The anastomotic opening in the stomach should be at the most dependent point of the dilated organ.

7. The operation is attended by a low mortality.

8. In all cases in which marked dilatation of the stomach exists, accompanied by emaciation, pain, and invalidity, the operation of gastro-jejunostomy should be performed.

9. The relief of pain, due to the effort of the stomach to relieve itself, follows this procedure at once. The patient gains rapidly in weight and if non-malignant disease be present his former good health is restored.

Infantile Intestinal Catarrh.

Dr. W. R. Beatie concludes in the Medical Age, a good paper on this subject as follows:

1. During the heated season keep the body cool, but not too cool. Uniformity should be the rule; babies don't enjoy extremes of anything.

2. Most important of all is the proper regulation of the diet.

3. Impress upon the mother the fact that the very first variation from the proper digestion should be corrected by the family physician and not by the busybody neighbor.

4. The mother should be impressed with the fact that the opinion of the physician is of as much importance in the matter of food

as if medicine were to be administered, as food is the life of the child.

5. We should see to it that less diet and a more digestible one be brought into requisition.

6. Relieve the thirst by pure water—in fact, plenty of water internally and externally.

7. Regard for cleanliness of all feeding utensils and nursing bottles should be insisted upon.

They Must Have License.

Physicians are Required to Stand an Examination.—The Supreme Court Declares the Law Requiring it to be Constitutional and Entirely Just.

An important case of special interest to the medical profession of this State was decided by the Supreme Court.

A man named T. Call, in Wilkes county, was indicted for practicing medicine without having passed the required examination before the State Medical Board of Examiners, as required by law.

He set up, as his defense, that the law requiring this examination was unconstitutional—contrary to Article I., section 7, of the State Constitution, which forbids exclusive privileges and emoluments to any set of men; also in violation of section 31, of the same Article, which prohibits monopolies and perpetuities, and is further obnoxious to the XIV. amendment of the United States Constitution, which prohibits any State to deny to any person the equal protection of the laws.

In rendering the opinion of the court upon these points, Judge Clark says it is not to be questioned that the law-making power of the State has the right to require an examination and certificate as to the competency of persons desiring to practice law or medicine. To require this, he further says, is an exercise of the police power for the protection of the public against incompetents and imposters, and is in no sense the creation of a monopoly or special privileges. The door stands open to all who possess the requisite age and good character and can stand the examination which is exacted of all applicants alike.

The defendant, Call, also contended that the law requiring an examination is unconstitutional on the additional ground that it exempts from its requirements those physicians who were already practicing medicine and surgery in this State on March 7, 1885. It will be remembered that it was the Legislature of 1885 that passed the law complained of and that it was made prospective so as to apply only to those who should begin the practice of medicine and surgery thereafter. Touching this point Judge Clark says :

"This was not unreasonable. It was fair to assume that those already in the practice, many of whom had grown gray in the service of humanity and the alleviation of suffering, had already received that public approbation which was a sufficient guarantee of their competency, and should not be needlessly subjected to the humiliation of an examination by the side of beardless boys, who had not yet swung a scapel or prescribed a pugative save under supervision, while those already in practice who had proved incompetent, it might be assumed had been equally stamped with public disapproval at the cost to the public of much better experience—an expensive and dangerous process of distinguishing the two classes, to save the public from which, in future, was the object of the new requisition requiring examination and license by a board of competent examiners."

The opinion holds that the special vérdict in Call's case was defective, in that it did not find that the defendant practiced without fee or reward. "If indicted under section 5, chapter 181 of the acts of 1889, it was not necessary to allege or prove that the defendant practiced without fee or reward.

"Judgment arrested."

Eucaine as a Local Anesthetic.

F. C. Wallis, M. P., F. R. C. S., in an article entitled, "Eucaine as a Local Anesthetic when used Hypodermically," published in St. Bartholomew's Hospital Journal, August, 1897, states having used Eucaine A for some months past in St-Mark's and Charing Cross Hospital in 9 removals of tumors, 44 rectal operations and 2 abdominal operations. The results of his experience with Eucaine are most satisfactory. He has used a solution of 4% and he has never seen any signs of toxic effects even when a considerable amount has been used. This percentage he found quite strong enough to produce absolute local anesthesia for any small operation. He has in a large ischiorectal abscess, injecting as much as 1½ to 4 drachms subcutaneously without any ill effects at all. The average amount required for a small operation was from 1 to 1¼ drachms of the 4 per cent. solution. One of the great boons this drug possesses is that the operator need not be at all nervous about using sufficient, and if the desired anesthetic effect is not produced by one drachm, the second or third can be used with every confidence as to the safety of it. He frequently used it in the out-patient room for abscesses, and found it most useful. both in hospital and private work, for removing the redundant skin which is sometimes left after operations for hæmorrhoids. He has no after effects to record and concludes that Eucaine has a great deal to recommend it.

In the British Medical Journal of November 27th, 1897, Dr. W. Jobson Horne and Macleod Yearsley described their experience with Eucaine B, which they have employed in 100 cases of diseases of the ear, nose and throat. They found that the pulse was not materially affected in either rate or character and they have not met with a case in which the drug per se influenced the cardiac action.

It has been stated that Eucaine induces hyperæmia and on this account the drug is inferior to cocaine, which produces an ischæmia so serviceable in investigating diseases of the nose. Upon the application of a 5 or 10 per cent. solution of Eucaine to the mucous membrane hyperæmia will occur as an immediate result, this is in the majority of cases but an initial blush, rapidly passes off, and gives place to an ischæmia, which, as seen in the nose, is generally less marked than that produced by cocaine. Upon a further application there is no recurrence of hyperæmia, and the ischæmia may be increased. In no case have we met with excessive or unexpected hemorrhage following operations done under Eucaine anesthesia, such as is not uncommonly met with after the use of cocaine. This is no doubt accounted for by the action of Eucaine upon the peripheral vessels already alluded to.

As regards the disturbances of sensation following the anesthetic action of the drug, more particularly in the case of the pharynx, these are not only less unpleasant and less marked than those produced by cocaine, but more transient, and, speaking generally, after the lapse of an hour from the time of application, the subjective sensations may be described as normal. Those who have experienced the effects of both drugs have expressed a decided preference for Eucaine.

In concluding the writers say:

"Were Eucaine to be of no further service than to act as an efficient substitute in cases such as we have mentioned in which an idiosyncrasy for cocaine precluded an operation, even then this new local anesthetic could not be regarded otherwise than of importance.

"So far in our experience with Eucaine we have not met with a case in which a single symptom supervened in the least way suggestive of a toxic effect of the drug."

We quote the following from The American Journal of the Medical Science, Philadelphia, December, 1897:

"Eucaine B in Stomatology—Drs. Dumont and A. Legrand make use of a 1 per cent. solution sterilized by boiling. They report seven observations, concluding that it is a good local anesthetic, producing anesthesia as rapidly as does cocaine, but which persists for a shorter period (about three times less), and that its feeble toxicity permits its safe employment in dental surgery even when practiced upon children.—*Bulletin General de Therapeutique, 1897, 18e. liv. p. 545.*"

Subjective Sensations in Epilepsy.

In a paper in the December number of the Practitioner Dr. Campbell Thompson in the course of some remarks on the importance of these "warnings," both in reference to their usefulness to the patient and their significance as indicating the probable seat of the discharging lesion in the brain, refers to some cases which have come under his notice. The first case was that of a man thirty-seven years of age who had been subject to the fits since the age of twenty-one years. Preceding a fit there was usually considerable psychical disturbance which began about twelve hours before the fit and was characterised by strange weird presentiments, quite indefinable, often accompanied by sudden recollections of trifling things that had happened in childhood and loss of memory for things connected with his everyday life of the present. The second case was that of a man of thirty years of age who had suffered from fits since childhood. In his case the "warnings" commenced with a startled feeling followed by cramp-like pains in the left hand and arm, sometimes extending to the left side of the face and sometimes associated with a bitter taste. He also nearly always heard at these times a monotonous ticking in the left ear and at the last moment just before losing consciousness he experienced a choking sensation. This somewhat elaborate aura lasted as a rule for about half an hour. The former case, Dr. Campbell Thompson remarks, probably illustrates the condition described by Dr. Hughlings Jackson as the "dreamy state" or intellectual aura. The third case described is that of a young man admitted to the Middlesex Hospital, under the care of Dr. Kingston Fowler, complaining of severe pain in the head. He had had since childhood a chronic discharge from the right ear, and although he had never had any fits he stated that he occasionally felt giddy and at the same time experienced peculiar sensations of smell which he could not accurately describe except that they were very unpleasant. A few hours after admission he became delirious and died suddenly, and at the necropsy he was found to have an abscess situated in the anterior part of the right temporo-sphenoidal lobe. In more than one case a lesion in this region has given rise to an olfactory aura similar to that here described.

The Role of Auto-Toxis in the Production of Insanity.

Dr. A. McClain Hamilton presented a contribution on this subject at a general meeting of the Medical Society of London held on May 11th of this year. (Dublin Journal of Medical Science.) He had conducted clinical observations and experiments on animals to determine whether there was any specific or noso-toxicity of the urine of the insane, and if so, its nature; to discover how important and general was the theory of uric acid poisoning, and whether mental disorders were produced and modified by an auto-toxemia, whether the offending substances were the leucomains or the intrinsic products of putrescence in the intestines. Dr. Hamilton arrives at the following conclusions:

(1) Urines rich in indican contained very little or no preformed sulphuric acid, and were toxic. (2) When the sulphate ratio is materially changed it probably indicates auto-toxis, in connection with an increased amount of combined or etherial sulphates. (3) Such indications were generally found with acute insanities in which rapidly developing symptoms occur. (4) Changing illusions and hallucinations, unsystematized delusions, confusion with verbigeration in connection with insomnia, pallor, intestinal indigestion, constipation, and rapid exhaustion are due to auto-toxis. (5) Paranoiac states, or those in which concepts are the features, chronic stuporous conditions and certain forms of dementia have little to do with the formation of intestinal products of putrefaction. (6) Various post-febrile, traumatic, alcoholic, or drug insanities are those in which auto-toxis is most constant. (7) Variations in excretion of combined sulphates keep pace with the changes in the progress of an established insanity, epileptiform attacks being directly connected with putrefactive processes. (8) The most successful treatment consists in lavage, intestinal irrigations, gastric and intestinal antisepsis, by means of hydrochloric acid, borax, salicylate of sodium, charcoal, guaiacol, or naphthalin in small and repeated doses, and the administration of a combination of the red marrow from the small bones, blood, and glycerine.

The Treatment of Insomnia.

Dr. Wilcox, of New York, discussed this subject at the Montreal Meeting of the British Medical Association. He said:

The treatment of insomnia is the treatment of a symptom; an important symptom, it is true, but still it is a symptom. I am in thorough accord with Patrick when he says:—"Insomnia is the result, not the cause, of cerebral affections, and it does not give rise to organic disease. It may be the earliest manifestation of otherwise latent brain disease, and the conscientious physician will search this out and treat it; not attempt to avert some indefinite and vaugely threatened disaster by attacking the insomnia." As for its relationship to other pathological conditions we know that it is a symptom of various habits, for example, alcohol, coffee, tobacco. Here prevention is essential, and hypnotics are only temporarily necessary.

If study or busines are taken into the hours of sleep, this insomnia, truly a simple insomnia, is to be treated antipathically—the habit of sleeping must replace the habit of sleeplessness. Measures other than drugs are required. If sleeplessness is the result of pain, another symptom, the cause of the latter must be sought out and relieved, either by the cause being removed, or if this is possible, a narcotic, not a hypnotic, is indicated. If there are circulatory disturbances the condition of the heart and blood-vessels needs investigation, and hypnotics have but a temporary use. Should the patient be afflicted with goutiness—and Ewart deserves our thanks for coining a useful term—quite likely sodium phosphate, sodium salicylate, piperazine, or uricedine in this instance will prove to be a valuable hypnotic. Again, if we are dealing with kidneys in which arterial degeneration has taken place systemic blood vessels are contracted and the wall of the left ventricle is thickened, the nitrites may relieve the insomnia. In the anæmia, or rather hydræmia, of the young woman, iron in organic preparation will be a true soporific. Instances might be multiplied.

It is essential that we have at our disposal safe, reliable, and pleasantly-acting hypnotics. Sleep is as essential as food; the organism cannot dispense with either.

They are of nearly equal importance. There is scarcely a morbid condition of which the prognosis does not become markedly worse if insomnia supervenes. Just so far as impaired nutrition militates against cure, so far sleeplessness becomes an important factor.

Drugs alone are not sufficient; the cause of the symptoms having been ascertained and, if possible, removed, physical therapeutics should be employed. When all has been accomplished that is possible from hygiene and physical measures there yet remains an important place which drugs, and drugs alone, can occupy. This drug treatment of insomnia is well worth our careful study. Routine prescribing is utterly indefensible; equally so is the reckless administration of drugs. Insensibility is not sleep. The question is not "how large a dose can the patient survive?" but "how little of the drug will produce a sleep closely approximating the normal, and what remedy will give rise to the fewest and most insignificant after-effects?" We desire sleep-persuading, not sleep-compelling, drugs.

Typhoid Bacillus in Soil.

The report of the Medical Officer at the Loal Government Board of London, presented by Dr. Sidney Martin, on the behaviour of the typhoid bacillus in soil will be read with much interest. (British Medical Journal.) In reviewing the facts of an epidemic of typhoid fever which occurred in Chichester between April and August, 1896, Sir Richard Thorne draws attention to the steady diffusion of the disease which set in immediately after the appearance of a case in a notoriously insanitary area outside the city. This prevalence of the fever, he says, goes to show that enteric fever, though mainly distributed in epidemic form by means of water or of milk, is by no means always a waterborne disease, and it raises anew the question as to how far recurring prevalences of enteric fever in one town or spot can be due to the persistence in more or less active form in certain soils of the organism of the disease. Accordingly Dr. Sidney Martin has investigated the question as to what soils tend to conserve and enhance, and what soils tend to destroy and discount the life and physiological activities of the typhoid bacillus under different conditions as regards temperature, moisture, and organised constituents. Although the investigation is not compiete, Dr. Martin has ascertained that the behaviour of the microbe is very different when in the absence of competing micro-organisms it is implanted in organically polluted soil and in soil from an altogether uninhabited and uncultivated area. In soil of the former sort, as for instance in samples of earth from Chichester, the bacillus rapidly increases and spreads abroad, whereas in the virgin soil under like conditions of temperature and moisture it languishes and quickly dies out. The importance of such work as this is very great, and we trust it will mark the beginning of a new epoch in the study of bacteriology, or rather of that as yet almost untouched branch of the science which deals with the life history of pathogenic micro-organisms when outside the body and living under what may be to many organisms their natural conditions.

The method of experiment used in this research was to place the soil at the bottom of an Erlenmayer flask in a uniform layer. Inoculation was made into the centre of the soil, and after varying periods test cultures were taken, both from the spot of original inoculation and from localities removed from the centre. In this way it could be ascertained, not only if growth had occurred, but in addition, if any extension had taken place.

In the preparation of one of the samples of soil it was found necessary to dry it and to sift it, and when placed in the flask it was moistened so as to bring it back to its original condition. It would be interesting to ascertain if this manipulation produced any effect on the soil in the way of facilitating or otherwise the subsequent growth of the bacilli.

The Use of Large Doses of Creasote in Phthisis.

Dr. Clifford, in the London Lancet, gives an account of a series of cases of incipient tuberculous disease of the lung and another series of the more chronic forms of disease. The patients had been treated of pure beechwood creasote dissolved in codliver-oil, beginning with three or five minims, the same amount being added to the privious dose every alternate day until a maximum of 180 or 160 minims per diem was reached. He had found that of all the mothods of giving the drug this appeared to be the least objectionable to the patient. The results achieved had been highly satisfactory and in some cases most striking, the most marked effects being produced when the larger range of dose was reached. The fall in temperature, gain of weight, and general subsidence of symptoms had, in many instances, been surprising, and seem to be more definite and lasting than the degree of improvement commonly observed as the result of hygienic treatment only, Contrary to expectation, no complaint was made by the large majority of the patients of the smell of the drug, and it was probable, from both clinical observation and chemical experiment, that the creasote was rapidly broken up in the stomach, possibly forming a more stable compound, in which form it was excreted very freely and rapidly by the kidneys. Its presence could only be detected in the urine after further distillation with strong sulphuric acid. In many instances the patients passed blackened or greenish urine, but it could not be ascertained that either the quantity or chemical composition of the urine was otherwise materially altered, and there were no unpleasant symptoms attending the altered color of the excretion. Further chemical investigation was, however, necessary to explain some of the changes which the drug undergoes in the body. As a result of purely empirical use, it appeared that an amount of success was to be obtained by its employment, especially in the early cases, which was quite equal to, if not better than, the results obtained by the more specialized preparations, such as guaiacol and its carbonate, and its was evident that it could be well tolerated when dissolved in codliver-oil, and hence the painful and unpleasant methods of introduction, such as subcutaneous or rectal or tracheal injection, were rendered unnecessary. The drug was not to be regarded as in any sense a specific remedy for the disease, but rather as a valuable adjunct to the many existing methods of hygienic treatment at present in use.

Hospital Obstetric Practice.

At a recent meeting of the Ulster Medical Society Dr. John Campbell read a paper on Observations on One Hundred Cases of Labour in Hospital Practice. (British Medical Journal.) Hospital cases were liable to have higher temperatures than those confined in private, because the patients were dirtier, more of the cases were difficult or complicated, and pupil nurses and students were allowed to examine them. They suffered less, however, from lacerations and less often needed the forceps, partly on account of their first pregnancies occurring early in life and because they got more time in labour. (1) Temperature before delivery was raised by tedious labour, by the presence of decomposing fœtuses, by the introduction of bougies to induce premature labour, and by pleuritic pain, a rise being noted in 9 per cent. of the cases. No serious complications followed delivery in these cases. (2) Temperature at delivery averaged 98.8. It was over 100 deg. in 13 per cent. In eight of these cases there was no obvious cause; in the remaining five it was due to prolonged labour or to the means taken to induce premature labour. (3) Temperature after delivery was over 100 deg. in 48 per cent. Influenza, emotion, delirium tremens, and difficult forceps delivery complicated the cases in which the temperature was highest. (4) Relation of pulse to temperature showed the rise and fall of the pulse to precede that of the temperature. and proved that a falling pulse and a rising temperature indicated that a sudden great drop in temperature would occur within twelve hours. (5) The breasts gave trouble in 10 per cent. of the cases, but influenced the temperature in only 5 per cent. They were most influenced on the third and fourth day. Multiparæ suffered more than primiparæ. (6) The forceps were applied in 10 per cent. of the cases. They were used on account of danger to mother and child in protracted labour, danger to child alone in protracted labour, prolapse of cord, and to cardiac disease in mother. Two children were stillborn in the forceps cases. (7) Perineum was untorn in 81.3 per cent. of primiparæ. Conclusions: (1) Douching was unnecessary after a natural labour. As done by the nurse it was often injurious. In private practice preventing the nurse from making vaginal examinations would do more to diminish puerperal fever than anything else. In operative cases one douche after delivery should be given. (2) The forceps should be less often used than they are. (3) The perineum was best preserved by giving it time by retarding the expulsion of the head and by avoiding the forceps as far as possible.

Nervous Disorders and their Causes.

A large percentage of the diseases from which people suffer at the present day seem to have their seat in the nervous system, whither the majority of the symptoms point. Hence the sufferer is ever seeking some panacea that will act as a regulator and restorer to this most important and highly vitalised part of the human system.

We are still in the infancy of the study of nerve structure. and nerve function. says the "Pacific Health Journal," even though the past decade has thrown such a flood of light upon human physiology, revealing the fine structure of nerves which penetrate every tissue, and which sustain a vital relation to their activities. The stability and endurance of nerve tissue surpass that of any other part of the body. Science teaches us that there is greater reserve vitality in the nervous system than there is in all the other tissues combined. It is the only texture found in the body which sustains no loss of weight after death from starvation or any other cause. It is the last to grow old. All things being equal the mind will retain its vigor and power when other parts of the body have lost their usefulness.

The nervous system represents the vital acting part of the body. A muscle or a tissue severed from its nerve supply ceases to perform its functions. Again, the character of all the activities in the body is determined by the character of the force represented in the nerve supply. Hence all thought, sensation, feeling, and action, are normal or abnormal according to the nature or state of the nerves which regulate them. If that is abnormal, the force will manifest itself in perverted feelings and disordered functions.

When disease of any organ or tissue does not depend primarily upon any change of structure in the part itself, we must look for the cause of the trouble somewhere in the nervous system. The nature of these various nervous disorders, though often quite distressing, are not usually as serious as they seem. True organic disease of the nervous system does exist, and such conditions are often hopeless as far as a cure is concerned: but by far the greater majority of nerve disorders come because the tissue of that system is imperfectly fed, improperly used, or too little rested. Correct these conditions, and the normal action is resumed. A lamp, when provided with pure oil and proper care, gives a bright light, but the same instrument, with poor oil and neglect will perform its function very dimly. In the same manner a nervous system which is fed by food that a perverted taste selects, or that overburdened and abused digestive organs provide, can give to the body and mind only energy that will manifest itself in aches, pains, and disordered functions. In the same manner, dress, rest, work, and all the environments of man, have to do with the quality of the nervous energy that is produced, and through it, with the quality of life and work that come from it.

The Incompatibility of Antipyrin and Sodium Salicylate (in Powder Form).

William J. Robinson (New York Medical Journal) calls attention to the fact that antipyrin and sodium salicylate cannot be dispensed together in powder form; immediately, or within a short time, liquefaction takes place, and when the powders reach the patient he is likely to find no powders at all, but only thoroughly soaked pieces of paper. Though for practical purposes it is immaterial whether the change is of a chemical, or of a purely physical nature, it is his opinion that the liquefaction occurs in virtue of a true chemical reaction. Helbing says: "The reaction of sodium salicylate and antipyrin, sometimes stated to be the result of a chemical change, has been decided, by careful research, to be merely the result of deliquescence, the salicylate acting as a carrier of moisture to the more soluble antipyrin (spica)." To this statement the author is unable to agree. Sodium salicylate is permanent in the air—that is, it does not attract moisture; nor is antipyrin 'more' soluble. Rather the contrary. Antipyrin is soluble in one part of water, while sodium salicylate is soluble in 0.9 part of water. Nor does sodium salicylate contain any water of crystallization which might be liberated during trituration and act as a solvent for the antipyrin (as is the case with many salts).

The subject of the incompatibility of the two above-mentioned drugs was recalled to my mind by an occurrence which took place a few days ago.

A physician was called in to a patient suffering with acute articular rheumatism; the fever was very high, and the pains were excruciating. The doctor prescribed powders of phenacetin, antipyrin and sodium salicylate, and the druggist was asked to make them up in a hurry. It was a damp evening, and when the medicine was brought to the patient there was not a particle of powder left, only a box of wet papers. The druggist was asked for an explanation, but he said it was none of his business, that he made up the prescription as the doctor wanted, and if anything was wrong they should apply to the latter for information. They went to the doctor, he was out, and another physician was sent for. He relieved the patient by an hypodermic injection of morphine and prescribed capsules of phenacetin and salol; he was asked to take further charge of the case. Thus non-familiarity with the important, but sadly neglected, subject of incompatibilities lost the physician a good family.

The substitution of one article for another is a crime alike against physician and patient. The medical profession can put an end to it by sending their prescriptions only to those pharmacists around whom there rests not the slightest suspicion.

Resinol in Treatment of Diseases of the Skin.

Dr. E. A. Edlen, Moline, Illinois, in discussing this subject, says :

In view of the fact that many skin affections are generally of extremely distressing character making the patient nervous and impatient on account of the unseemly aspect and the annoying symptoms, it is very desirable to find a remedy that will relieve the sufferer and effect a cure in the shortest possible space of time. Many cutaneous diseases are very tedious, unpromising and trying to both patient and medical adviser. Old remedies with established reputation, often fail to accomplish a cure or even amelioration in the symptoms. This condition has created a demand for more effective agents in the treatment. There is no lack of supply of new drugs, as the great host of vaunted remedies for all kinds of skin affections is augmented every day, and the market is stuffed with salves and ointments, all of them of superior quality, and the one more effective than the other. Now it is very puzzling to the average mind how to select the right one among the vast number of healing agents, which all have been employed with the greatest success, according to appended reports from reputable physicians and otherwise. After having used several of these greatly extolled remedies, you are sure to find the truth of the old adage, "It is not all gold that glitters," and you begin to suspect that the reports are fabricated where the product is made. You get discouraged and the patient leaves you, sadder and not wiser. Such a state of affairs is very aggravating, and, unless you should happen to hit upon the right thing at last, you are liable to make up your mind that the whole thing is a huge fraud perpetrated by the manufacturers upon the medical profession. Once in a while a much lauded remedy will work like a charm in one or two cases and then fail in the next and next ones, while others will do admirably for certain diseases and act injuriously in others, where, according to expectations and assertions, the results should be favorable. However, after many trials and frequent failures, one is apt to accidentally hit upon the earnestly sought for remedy, which will accomplish as much as promised. This has been my fate. While the generally acknowledged remedies for various cutaneous diseases have done good service in many instances, I have the great pleasure to state that my success in healing those affections since I began to use Ungt. Resinol has been admirable. I have found that its action in inflammatory conditions of the skin and mucous surfaces is truly gratifying. I have had excellent results from its use in eczema, seborrhœa, herpes, lichen, erysipelas, vulvatitis, pruritus, etc. In fact no other remedy of its kind can compare with it in uniform success. In order to demonstrate the validity of my assertions, I will cite from my case book a few, taken at random, where I have used Resinol ointment with most pleasing results both to myself and patients.

Case 1.—A girl, twelve years of age, well nourished and healthy looking. She had suffered for six months from eczema of the face, for which several remedies had been used with unsuccessful results. The left side of her face, ear, and neck, were covered with bloody crusts. There was intense itching, the skin was inflamed and weeping. I ordered olive oil to be applied on the crusts, and next morning cleansed with Castile soap and water. Previous good results from Ungt. Resinol in similar cases decided me to use it in this instance. The first application relieved the distressing itching, and created a feeling of well being long wished for. The ointment was applied twice daily and the face cleansed with olive oil instead of water. The inflammation faded away surprisingly quick, and the crusts failed to reappear after a few days' treatment. In two weeks the patient was entirely cured of the obnoxious disease, that had withstood other treatment for several months.

Case 2.—A child sixteen months old, fat, ruddy, and robust looking. Parents healthy and without tubercular taint. The child had been affected with seborrhœa of the scalp and face for several months.

When it was brought to me the whole scalp was one large scab and the face was more or less covered with disfiguring crusts. I learned that several physicians had prescribed different remedies for the affection with negative results. As I had had splendid success with the Resinol ointment, I prescribed it. After thorough cleansing and removal of all the crusts by softening with Olive oil, and washing with soap and water, the ointment was applied. I ordered it renewed morning and evening. Three days later the child was brought to me again. The whole diseased area was clean and in a healthy condition.

The same treatment continued. In a week, the mother brought the child again, and a happier woman than that mother I have seldom seen. "Doctor," she said, "this is marvelous. There is not a spot left on the child, and the hair is beginning to grow again." Upon inspection I found this to be the case. I shall never forget what joy that speedy recovery created in the mother.

Case 3.—Mr. F. M., dry goods clerk, had been suffering with intense burning and itching on his left shoulder and back for 3 days,—could not sleep and was very irritable. On inspection I found that it was a very severe case of Herpes Zoster. I prescribed a laxative, and Resinol to be applied on the affected part three times a day. The next day he called at my office. "This is wonderful, Doctor" he said, "I have slept all night and the pain and burning have entirely left me." The vesicles were drying up and no new ones were noticed. In 5 days he was well.

Case 4.—Mrs. D. N. E., had been suffering for a considerable time from Pruritis Vulvae. It had at times been so intense that even in company her desire to scratch herself made her forget her surroundings to her great mortification at the irrisistible motion of her hands toward the place affected. A superinduced ailment decided her to apply for treatment. She had noticed that the external generative parts had become swollen and tender and caused her great pain especially in walking. The Vulva was very swollen and angry looking. It was a well developed case of Vulvitis, probably caused by infection from the finger nails in the frequently repeated acts of scratching. Resinol ointment was prescribed to be applied 3 times daily. After 4 days, she called at my office, and, with tears in her eyes, thanked me for the great relief she had obtained. The inflammation had materially decreased and the pain and itching had become quite endurable. In a few days she reported again. The Vulvitis had all disappeared, and the pruritis was greatly improved. She was no more subjected to the mortifying involuntary motions of scratching the parts and felt positive that her disease would soon be entirely cured. Nor was she disappointed. In a month she was entire well and has remained so up to date.

Case 5.—Mrs. N. G., aged 26, was attacked with Erysipelas. I was called to see her and found that she had high fever; her nose and one side of her face were red and puffy looking. She was a very delicate lady with a fair skin. I prescribed Ichthyol ointment to be applied night and morning, and gave her a laxative. Next day, I found her worse. Her tender skin had been greatly irritated by the ointment, and she positively refused to use it any longer on account of the disagreeable odor. I then prescribed Resinol and did not have occasion to regret it, as she improved from the first application, and did not object to using it. I advised her to apply the ointment to the surrounding healthy skin as well. It was very effective, preventing any spreading of the disease. In 4 days, her face was clean and fair as ever before. The only valid objection against the employment of Resinol appears to be that it cures the patients too speedily. It is indeed, a remarkable remedy for inflammatory conditions of the skin. Nor is it valuable in those conditions only, but is applicable as well in cutaneous parasite diseases, where it is admirably efficacious, and is in general a first class aid to the dermatologist.

Bright Outlook for Serum Therapy.

Gaillard's Medical Journal editorially says:

The outlook in the future is bright for obtaiuing through serums, or through the toxic substances of the micro-organisms themselves, means for immunizing against most, if not all, of the bacterial diseases. This immunity in most instances will not be of long duration, but the difficulty may be overcome by repeating the immunizing injection. When the micro-organisms that cause scarlet fever and measles and the other diseases in which a prolonged immunity follows recovery from infection the hope is that vaccine as efficient as that now used in small-pox may be obtained. The prospect of obtaining serums that will promptly arrest the progress of a disease by the destruction of the micro-organisms and their poisons already in the body is not so encouraging as it at one time appeared.

The serum procured from animals immunized by the pneumococcus has very slight curative powers, but sufficient has been accomplished to make further investigation imperative and to justify physicians in using it in the treatment of cases of pneumococcus infection.

The hope for the future is that all growth of the micro-organisms may be stopped and further action of the bacterial poisons be prevented at the moment the treatment begins; but it cannot be expected that the tissue cells or the activity of the organs will be benefited except by neutralizing certain deleterious products, thus allowing the vital processes and other therapeutic aids a better chance of success.

Dr. Dunbar Ray, of Atlanta, Ga., has become one of the editors of the Atlanta Medical and Surgical Journal. Drs. Grandy & Ray now constitute the editorial staff of this old and influential journal.

Curative Action of Hyperemia.

Bier has studied the effects of artificially produced hyperemia upon various joint affections with striking results in some of them. 1. Syphilitic products grew worse under the treatment. 2. Two sarcomas grew very rapidly. 3. In eleven cases of gonorrheal arthritis the results were very good, the pain was lessened and mobility increased. 4. In rheumatism the results were indifferent. 5. Arthritis deformans and chronic rheumatism were generally improved. 6. No influence upon gout. 7. Tuberculous and especially lupus affections were very much improved. This is analogous to the theoretical value of stasis in the lungs in the treatment of phthisis.

How does the hyperemia act? The author has previously shown that improved nutrition is not the explanation. Again it is proposed that, the blood current being slowed, the leucocytes assemble and, according to Buchner, set free alexines. Richter holds that they emigrate as in the first stage of inflammation. Does the large amount of CO_2 in the blood of stasis give it an increased germicidal property? The author thinks this question by no means settled. He maintains that his method is of great value not only in tuberculosis, but in some acute infections, and suggests that the antiphlogistic treatment may sometimes have done harm.

Which is the Preferable Operative Method of Holding the Uterus in Position?

Dr. C. Pedrick read a paper with this title at the recent meeting of the American Association of Obstet. and Gynecology:

The essayist said that in all cases of retroversion of the uterus symptoms of the condition are not necessarily present, but a certain proportion are accompanied by hypertrophy of the organ, endometritis, leucorrhea, pain, backache, menorrhagia, metrorhagia, and general malaise. Constitutional treatment fails to relieve a largs number of patients so afflicted unless the uterus is restored to its normal position. The principal factors in the continuance of the ill effects of retroversion are found in the torsion of the contained vessels, infection of the endometrium, and defective drainage of the uterine cavity. Retroversion is the first stage of prolapse, and for this reason alone the organ should be replaced and held in position.

The operation of ventrofixation in cases of women liable to bear children is no longer practiced by the essayist; he performs it only in cases of marked prolapse and when both tubes and ovaries have been removed, although in child-bearing woman he has seen no bad results from it, several of his patients having had normal labors after it had been performed. His preference is given to Alexander's operation, or one of its modifications, however, in the case of women who have not yet reached the menopause, and when there are no adhesions or disease of the adnexia. Women who have never been pregnant are liable to have poorly developed round ligaments, which are prone to become detached to the anchoring sutures, and in these instances he opens the abdomen and shortens the ligaments after the method of Mann, Dudley, or Wylie. The method of the first is given the preference. He employs plain or chromocized catgut sutures in all cases. The different methods of shortening the ligaments through a vaginal incision have never appealed to him, and therefore he has not given them a trial.

The Contributions of Bacteriology to Therapeutics.

Dr. W. H. Park in the Medical News presents this subject in a very attractive manner. He begins by saying it is now well known that bacteria cause diseases chiefly by means of the poisons which are elaborated during their growth. The abstraction of food from the body and the mechanical interference with functions which are caused by their presence are also deleterious, but in a minor degree. Although many complex factors influence the degree of susceptibility of the body to infection from any pathogenic germ, the most important and perhaps all-embracing one is whether or not the animal organism at the time and place of infection is in proper condition for the growth and activity of the invading germ. The living body is not a good soil for moist bacteria, even after they have penetrated the outer protecting wall of skin and mucous membrane.

The protection against infection exists in different degrees in the same individual toward different bacteria and among different individuals toward the same bacteria. The causes of immunity, either natural or acquired, are still only partially understood. If a few virulent anthrax bacilli are injected into a susceptible animal, the results of inoculation are soon manifest and death of the animal follows. If an animal of the same species, which has previously been immunized, be inoculated with the same germ, the bacilli not only do not increase but soon die. It was found, when seeking the reasons for this varying action of the bacteria, that in non-immunized animals they develop unhindered by the vital activity of the cells or fluid substances of the body, while in the immunized animals certain cells are attracted by the bacteria, and eventually destroy them. Meunes's recent investigation of the pneumococcus infections would seem to show that the attraction of the leucocytes for bacteria is not wholly due to any inherent property of the leucocytes, but rather to the effect upon the leucocytes of substances in the serum.

Boils and Carbuncles a Certain Sign of Disease.

Patients with boils, carbuncles, and felons are never in perfect health, although it is sometimes difficult to discover exactly on what particular departure from health the condition depends; patient investigation, however, will generally afford the line upon which successful treatment will rest. (Gaillord's Med. Journal.) Iron is most commonly needed, but quite as often there will be digestive and assimilative difficulties also to be overcome. Sometimes the cause lies only in overwork or worry, often in dissipation, though of a relatively harmless kind, involving late hours and irregular eating. I cannot help dwelling as strongly as possible on this constitutional aspect of the question, for in this I find myself at variance with much that is taught even in the best modern text-books. In them this aspect appears to be regarded apparently as of relatively minor importance compared to the local treatment, whereas I regard it as of the first importance, as compared to the relatively simple local treatment about to be described, which I have found thoroughly satisfactory.

The combination of iron which I have most commonly used in these affections is one which is known to us as Startin's mixture, somewhat according to the following formula: ℞ Ferri sulphatis ʒj; magnesiæ sulphatis ʒvj; acidi sulphurici diluti ʒiv; syrupi zinziberis ʒiv; aq. ad ℥iij; M. Sig. One teaspoonful in water, through a tube, after meals. Unless there is some counter-indication, I generally begin treatment also with a good mercurial purpe: ℞ Massæ hydrargyri, extracti colocynth. co. gr. x; Pulv. ipecac. gr. ij; M. Div. in. pil. no. iv. Take two at night and two on the second night after. These four pills are generally repeated at the end of a week, and perhaps in other successive weeks.

Sulphide of calcium, if a perfectly good and fresh article and properly used, has in my experience a very decided controlling effect over the process of suppuration. I always give it in gelatine-coated pills, which I test myself, for occasionally the drug will be found quite ineffective from having changed to the sulphite of lime or gypsum. To be efficient it should be given freely, ¼ gr., every two hours, say, eight or ten doses in the day; this in connection with the iron tonic.

With these measures and a most careful attention to the diet and mode of life the tendency to the suppurative process may generally be quickly overcome, as I have observed almost daily for many years.

Aseptic Obstetrics.

Dr. H. C. Mitchell, in the Medical Review, writes as follows:

If the family is able, have them provide themselves with a new mattress. Have all the bed linen, such as sheets, quilts, etc., thoroughly boiled, and dried by a hot fire, and not hung out where they will be exposed to dust. Iron them and roll them in a clean sheet and put them away in a clothes drawer or closet. Have a good supply of towels and clean clothes prepared in the same way. Use a room if possible that is not the ordinary living room. Remove the carpet from the floor, brush the dust and dirt from the side walls and ceiling and thoroughly scrub the floor and woodwork. When the labor comes on, direct the patient to wash out the bowel with a warm water enema, and take a thorough general bath. Instruct them to have a good supply of water already boiled and cooled and put into a clean pitcher, covered with a sterilized towel. Have plenty of boiling water ready for use at any time.

Thus far the accoucheur has done nothing but to give directions As soon as he arrives at the house he should prepare his hands by thoroughly scrubbing them with a nail brush and soap for from five to ten minutes. Then wash them in a bi-chloride of mercury solution.

An obstetrical bag should always contain the following articles, viz: a nail brush, a well-corked bottle of green soap (never use soap used by the family, as you never know to what it has been exposed); iodoform or sterilized gauze; absorbent cotton; fountain syringe; pure boracic acid; scissors; silk, and obstetric forceps. If the waters have not discharged the patient should be turned across the bed and the vaginal canal and vulva thoroughly scrubbed with green soap and boiled water, and then douched with bichloride solution or sterilized water. If you have time it is well to shave the mons veneris, as some eminent surgeon has said you cannot asepticize a hair. The vagina is irrigated with a twofold object, viz., for further sterilization, and to remove all particles of soap, so that it may not get into the eyes of the fœtus. The accoucheur should at no time during the labor make a vaginal examination without first washing his hands in an antiseptic solution kept for that purpose. The patient should not be allowed any clothing but a gown prepared in the same manner as the bedding. After the labor is completed, the vaginal canal should be again irrigated with an antiseptic solution. If there are any rents in the perineum or vaginal floor they should be repaired immediately, as they are the most fertile points for future infection, the external genitals should be washed and dusted with boracic acid or some other antiseptic, and then covered with iodoform gauze and absorbent cotton. The bedding and gown should be changed before the physician leaves the house, and not entrusted to a nurse, unless you know her to be thoroughly competent.

Cases managed in this way rarely ever have any rise in temperature or odor of decomposition. If there is any fever, the uterus should be irrigated with large quantities of bichloride of mercury solution and if necessary curetted and packed with iodoform gauze, which will generally bring the temperature down to normal in a very few hours.

Obstetrics practiced in this way, requires but little more time and expense than when done in a careless manner. The results are certainly much more gratifying to both patient and physician.

Fecal Impaction of the Sigmoid Flexure in Women.

Dr. Bacon, says the Chicago Medical Recorder, has found in several cases that were sent to him for abdominal operation, simple fecal impaction of the sigmoid flexure accompanied by local pain, backache, and such severe tenderness that a satisfactory examination was only possible under anesthesia. Cure was effected by the conjoined use of laxatives and high enemata. In all, the uterus was relatively normal at least, and the right ovary and tube as they should be. The sensitive mass on the left side, however, closely simulated a tender pus tube, an inflamed or otherwise diseased ovary, or a pelvic exudate. But the clearing out of she sigmoid with a laxative and a high enema invariably permitted the demonstration, under anæsthesia, of a normal tube and ovary on the left side.

Lessons like these are well worth recording and remembering. Their practical application not only prevents the unnecessary mutilation of women, but insures prompt relief of a most distressing ailment.

A sigmoid flexure with a long mesentery is bound to fall into the pelvis, and such a location of this double curved portion of the gut is far more common than is generally supposed. This statement is the outcome of repeated observations in the dissecting room and upon the autopsy table. In fact we have seen the sigmoid coils extend so far over to the right that they could easily be laid upon the cecum. We have even seen the transverse colon in the form of a V-shaped pendant, with the apex well down in the pelvis. With the relative frequency of these anomalies of the colon in mind, it is always well to clear out the lower bowel if there is the slightest room for doubt in the diagnosis of intra-pelvic disease. Sometimes such a precaution will prove a veritable *coupe* in cases that have suffered long, both from the symptoms and a multiplicity of counsel.

It must not be forgotten, however, that a high enema should be given to insure perfect results in cases of sigmoid impaction simulating tubal, ovarian or inflammatory disease.

Most Infants Fed Too Often.

Dr. W. L. Harris (Gaillord's Med. Jour.) says it is the quantity of food and the time of feeding are almost as important as the quality of food. Most infants are fed too often; one meal hasn't time for digestion before another is forced upon it, and soon there are fermentation and indigestion, and we wonder why the food doesn't agree.

It must also be borne in mind that an infant doesn't require the same quantity of fat in summer as in winter. The fat is not assimilated in very warm weather, and simply acts to disarrange digestion; so in the warm spring and summer months the milk should be given more diluted.

Sugar is a very important element of an infant's feed; it remains at about a constant per cent. in mother's milk, and should be kept at this in one formula for modified milk. Do not forget that it is as much a food as fat or proteids, and is not used simply to *sweeten* the milk.

I once heard of a physician who said he had stopped using sugar in his milk for children, as he thought it fremented too easily, and that he was using *glycerin* to sweeten the milk. Milk alone should constitute an infant's food till it is about a year old, and during the early part of the second year, in addition to milk, such simple articles as well-cooked oat-meal and dry stale bread may be given once or twice a day; later on, simple broth or soups, with grease taken off, and a soft-boiled egg may be given. Fruits, such as the juice of an orange, baked apples, or soft peaches in season may be allowed towards the end of the second year; but never, under any circumstances, should such articles as candy, cakes, and promiscuous fruits be allowed, for they are the primary cause of illness that cause the death of hundreds of infants every year.

Probable Deleterious Effects of Irritant Drugs.

Assuming that symptomatic dermatitis ensues as part of a general excretory action, the practical conclusion is obvious that any drugs that cause mischief to the skin should be given with great caution lest they injure other organs. (Gaillord's Medical Journal.) Upon the point whether the internal drugs used in skin practice may not act thus injuriously the writer has elsewhere written. We know that, as a rule, arsenic acts on the skin only after it has been administered for some time, or, as the phrase goes, has accumulated in the system. May it not be that the kidney, the usual channel of exit, has ceased to eliminate the drug, owing to some form of epithelial disablement? We know that long continued excretion of the gouty poison is able to set up kidney disease. Arsenic is obviously a more powerful irritant of epithelium than the poison of gout, and there is no apparent reason why the long continued elimination of arsenic should not also cause a nephritis. On account of its irritating nature few dermatologists would venture to use arsenic externally, except as a caustic. Yet the drug is given daily as an internal remedy, and, when once introduced into the body must be sooner or later eliminated by organs not a whit less delicate than the skin—organs, moreover, which are constructed upon a similar anatomical type, and which are known to be invariably damaged by poisonous doses of the drug. Nor is there any reason as far as one can see, for assuming any essential difference between the epithelium of the skin and of the kidney in their response to irritants. To take an example, skin and kidney react to a common irritant, cantharides, just as happens in the case of many other specific drugs capable of causing dermatitis. Arguing in a similar way, it is not easy to understand how the long continued excretion of such irritant drugs as iodine and mercury can be thrown with impunity upon the kidneys. It is a common observation that albuminuria may occur during a course either of mercury or of arsenic. May it not be that we too readily assume that the albuminuria in these instances is purely functional?

The Microbe of Yellow Fever.

The nature of the disease indicates that it is of germ origin and probably no other malady has received more careful investigation from pathologists to find its true cause. (Medical Sentinel.) From time to time various observers have claimed to have discovered the specific microbe, and have described germs that they consider pathognomonic, but none of them have stood the test of careful investigation, and other workers have demonstrated that the same existed in the body in other conditions.

One exception may be made to the above statement.. Surgeon-General Sternberg, U. S. A., found during his investigation of yellow fever in Havana, 1888 and 1889, a germ which he called the bacillux. This was obtained by culture experiments from a number of necropsies on those who had died from yellow fever, and was not found by comparative studies in those who had died from other causes. The results of his investigation were published at the time, but he considered that he had not found the bacillus present sufficiently often to warrant him in making positive claims for its specific character. although he suspected it. The microbe resembles very much the bacillus icteroides of Sanarelli, both in its morphology and its effects on animals.

Recently two observers, Sanarelli, of Montevideo, and Havelburg, of Rio de Janeiro, working independently, have published the result of their investigations, each claiming to have discovered the specific microbe of yellow fever but as the bacilli are unlike, one must be wrong in his deductions.

The bacillus icteroides of Professor Sanarelli is worthy of careful study and it seems that at last the causative facter of one of the most dreaded scourges of the human race has been discovered and before our eyes unfolds the basis of a rational therapeusis that may be the means of saving thousands of lives and that may ultimately be instrumental in freeing mankind from one of its most deadly curses. The bacillus icteroides is a small rod with rounded ends, united by pairs in culture, from two to four micromillimeters in length, being three times as long as broad. It grows readily in all the ordinary culture media, and is easily stained by the usual solutions used for such purposes. "When the colonies are grown in the incubator they do not present marked differences from other species of microbes; they are rounded, of a slightly irridescent gray color, transparent, even in surface and regular in outline. But if the colonies are allowed to evolve at a temperature of 20-22 degrees C., they look like drops of milk, opaque, projecting, and with pearly reflections." By exposing cultures for twelve hours in an incubator and then to the temperature of the air for the same length of time, they show themselves as constructed with a flat nucleus, transparent and azure, with a prominent peripheral circle that is opaque. This, the discoverer claims will distinguish the bacillus from all previously known varieties.

"It is a faculative anærobe; ferments glocose and saccharose; very resistant to drying; dies in water at 60 deg., or after exposure to sunlight for seven hours, and lives for a long time in salt water." All the domestic animals are more or less susceptible to the action of this microbe, especially the dog, in which an inoculation produces symptoms closely simulating those in man suffering from yellow fever. It produces in this animal fatty degeneration of the liver and kidneys, hemorrhages, vomiting, albuminuria, and suppression of the urine. The lesions found after death are almost identical with those observed in the human cadaver.

Professor Sanarelli believes that the germ is taken into the system through the respiratory organs; that it is found in the blood and organs and does not reside in the intestinal canal, and that instead of its toxins being absorbed from the stomach, they are formed in the blood. He has used injections of diluted filtered cultures in five men in all of whom typical symptoms of yellow fever were produced.

Professor Sanarelli has also directed attention to the important fact that the reason why the poison clings so tenaciously to ships, especially old ones, is because mould is found growing in the bilge and other parts of the vessel, and the presence of the fungus enables the germ to grow more vigorously and retards the action of disinfectants thus rendering it very difficult to destroy the infection.

A New Disease in Childhood.

Johannsen, according to Pediatrics, has seen several cases of which the following is a description: The children were of the age of one and a half years. First, a few vesicles, which were hardly noticed by the children's relatives, formed on the anus and the genitals. These burst and left open sores. Following this, vesicles also made their appearance on the hands and feet, The latter took on a bluish-red discoloration, and finally became thickly covered with large and small-sized bullæ. These were also found symmetrically distributed on the knees in less numbers. The children became extremely restless and cross. They also had a look of peculiar wildness and unrest. The speech was totally abolished, as well as the power of locomotion. The eruption was accompanied by violent itching. During the following weeks these bullæ made their appearance at intervals, some healing, while others were converted into weeping spots. After eight weeks no further eruption took place, but the parts on which the bullæ were situated, particularly the hands and feet, have a bluish and swollen appearance and are firm and hard to the touch. The nails of the toes are white, and split in fibres. Speech did not return during the whole time of observation. Treatment consisted in soothing and protecting applications, also in the administration of wine of iron and quinine, with bromide of potassium at night for the restlessness. This interesting combination of an affection of the skin with disturbed function of the central nervous system occurring at a certain age has not been described as yet. It may be possible that we have to deal with processes of ossification at the base of the cranium, like those described by Virchow some time ago in cretinism.

The Great Mass of Physicians Believe in the Efficacy of Diphtheria Antitoxin.

Diphtheria antitoxin is singled out among antitoxins by the success which has attended its employment in the treatment of diphtheria, as vaccine is among immunizing procedures in the prevention of smallpox. (Giallard's Medical Journal.) The great mass of physicians are convinced that diphtheria antitoxin in doses of 200 to 300 units will confer immunity against diphtheria from two to four weeks and that the period may be lengthened at will by repeated doses. By this means many children's asylums are now kept free from diphtheria. They believe further that when cases are seen early, that is, before general poisoning has occurred, antitoxin may be relied upon to arrest, with but very few exceptions, the progress of the disease.

Tetanus and diphtheria antitoxin, although so nearly identical in their efficacy as agents for immunization, differ greatly in their curative value. The explanation of this matter is the manner in which the two infections begin and progress. The tetanus infection progesses from five to ten days undetected in the wound, but only after general poisoning has occurred is the disease manifested to the observer. The diphtheria infection starts on the surface and before its toxins are fully developed and absorbed it is diagnosticated.

The nearest approach to the powerful tetanus and diphtheria antitoxin is that of the plague bacillus. This with the toxins produced in immunized horses a serum which is distinctly antitoxic and bactericidal. In man the serum has been used in several hundred cases, and given beneficial results both for purposes of immunization and cure, the mortality having been lowered from an average of 80 to 50 per cent.

Diagnosis of Jaundice.

Dr. John Inglis, in The Columbus Medical Journal, says:

The diagnosis of jaundice is generally easily made, though it is often very difficult to determine the exact cause. It is to be distinguished from the yellow hue of chlorosi, pernicious anemia, and organic visceral diseases, giving rise to a yellow discoloration of the skin. It may be distinguished by the yellow hue caused by malaria. cancer, lead poisoning and some kidney affections, by placing a few drops of the urine in a porcelian dish and causing a couple of drops of nitric acid to flow against it. If bile pigment be present, a greenish tint will result, followed by blue, violet, and a yellow or brown.

As has been said, it is a difficult matter to determine the cause, but the two main divisions in the etiology should be kept in mind—1. Obstruction. 2. Non-obstruction. If no obstruction, the stools will contain bile though it must be said there are occasional exceptions to this rule. If the duct is occluded the stools will be clay-colored or whitish.

The following hints as to the diagnosis with regard to the causation may be noted:

1. A tumor in the region of the pylorus of the stomach or of the gall bladder will indicate obstruction.

2. Colicky pains with or preceding jaundice point to gall stones.

3. Marked cerebral symptoms are generally associated with acute-yellow atrophy, or some toxic influence.

4. Darting pains indicate cancer, especially if the jaundice is marked.

5. If ascites be present look for cirrhosis or cancer.

6. When the hepatic area is greatly increased it may be due to abscess, enlarged glands, cirrhosis, cancer, fatty liver, or amyloid changes.

7. Severe paroxysmal pains may be caused by hydatids or aneurism and must be distinguished from gall stones, colic, or the darting pains of cancer.

8. A rapidly progressing jaundice with anorexia, vomiting, clay-colored stools, points to a catarrhal jaundice or obstruction by some foreign body in the duct.

9, A slowly progressing jaundice, stools gradually becoming clay-colored, indicates some new growth.

10. Recurrent attacks are genarally due to gall stones or catarrhal inflammation.

11. Jaundice, with a high fever, is generally secondary to some acute affection.

12. Jaundice occurring in early adult life with marked gastro-intestinal symptoms will be found mostly to be catarrhal.

13. Occurring shortly after birth, it is a mild affection, the cause of which has not been satisfactorily explained, but generally *icterus neonatorum* subsides spontaneously.

Ferro-Somatose.

Dr. A. Eichengrun (Pharmaceutische Centralhalle, No. 37, 1897) says:

With regard to few remedies in our materia medica does there prevail such a unanimity of views as to their therapeutic value, yet such a divergency of views as to their mode of action, as with the iron preparations in the treatment of anæmia and chlorosis, for the different theories regarding the action of anæmic conditions are directly and strongly contradictory. On the one side, Bunge and his adherents deny any absorption of inorganic iron combinations, and ascribe to them only a protective influence upon the iron of the food, by combining with hydrogen sulphide. On the other hand, Quincke, Woltering and others, point out that, if this were true, metals possessing the property of combining with hydrogen sulphide, such as bismuth, manganese and copper, would exert the same favorable influence. While some authors (Landwehr) seek for the cause of the action of iron in the removal of mucus from the walls of the intestine in the form of ferruginous combinations of mucin; others controvert this view by citing the favorable effect of the organic iron compounds which do not combine with mucin. Furthermore, while some ascribe to iron a tonic influence upon the gastro-intestinal canal, other show that favorable curative results can also be obtained by its subcutaneous employment. In short, every theory finds at once its opponent.

The natural sequence of this is that although iron is regarded almost universally as a specific, marked difference of opinion prevails concerning the value of the various and numerous ferruginous preparations, and above all, the views are still very much divided in reference to the use of the inorganic compounds. While formerly the inorganic compounds, especially Blaud's pills and the saccharate of iron were chefly employed, within late years, the organic ferruginous compounds have become more and more popular.

An abundant experience has taught that, when administered in an inorganic form, iron is capable of promoting the formation of blood, and this effect has been demonstrated experimentally on growing animals, fed upon food poor in iron. (Kunker.) On the other hand, it has been shown, especially through the investigations of Quincke, Kunker, Woltering, Gaule, Cloetta, and others, that the absorption of iron takes place in the duodenum independent of its manner of administration, and in the form of an albuminate. For this reason, it seems advantageous to supply to the organism only such iron compounds as resemble those present in the blood and organs (ferratin, hepatin, hematogen, nucleo-proteid) and thereby facilitate the conversion of the former into the latter. Aside from this, it has been shown that the organic combinations are much better tolerated than the inorganic preparations, inasmuch as, unlike the latter, they do not exert a caustic action upon the mucous membrane in consequence of their affinity for albuminous matter, and do not produce digestive disturbances, loss of appetite, and distress in the epigastrium. In consequence of this they can be used in cases where the latter are contraindicated, as in gastric and intestinal catarrhs, ulcer of the stomach, pulmonary phthisis, etc., in which experience has shown that the ordinary preparations of iron are not well tolerated.

In view of the excellent results which in latter years have been derived from the use of somatose in the treatment of anemia, it seemed advantageous to produce an organic iron combination with somatose, since there was some reason to believe that a form of a combination of iron with a so readily assimilable albuminous body, would be absorbed with especial facility, and as the somatose itself would exert a favorable influence upon the digestive tract.

Combinations of iron with somatose can, in general, be readily prepared, as the latter is capable of forming insoluble compounds, whose proportion of iron varies between 9 and 10 per cent., with a large number of organic and inorganic iron salts. These preparations, however, did not meet expectations; for, in view of their high content in iron, the doses given were so small that the peculiar effect of the somatose was not evinced; moreover, they contained the latter in an insoluble form diffcult of absorption; and finally, the combination of iron in these preparations was so very loose that it was at once converted into a chloride of iron by the gastric juice.

I have succeeded, however, by means of a much more complicated method of preparing a compound of iron with somatose, which fulfills the requisites of ready solubility, tastelessness, and firm combination of iron. This is the ferro-somatose of the Farbenfabriken vorm. Friedr. Bayer & Co., of Elberfeld.

Ferro-Somatose, is a light brown, fine powder, which is readily soluble in watery fluids. Its solution is best effected, as in the case of somatose, by sprinkling the powder by means of a fine and dry wire sieve upon the slightly heated fluid. The solution does not resemble an iron preparation, either in its taste or odor, does not blacken the teeth, and has no action upon the stomach walls, even during prolonged use for a number of weeks. It is not precipitated by means of ammonia alkaline carbonates, and strongly diluted acids. It is not coagulated by heating and does not give a precipitate with albumen. In brief, it behaves exactle like ordinary somatose, and in consequence of this, can be administered with any article of food. Its proportion of iron amounts exactly to 2 per cent., so that when admintstered, on the average, in doses of 10 to 15 grammes daily, from 0.2 to 0.3 grammes of iron are given, a quantity which agrees with that especially recommended by the XV. Congress of Internal Medicine (9 to 10 Blaud's pills).

The combination of iron is especially firm. If to the diluted watery solution, in the presence of cold, sulphide of ammonium is added, there is uo separation of sulphide of iron, even in the course of several hours; if the ferro-somatose is treated for a considerable time, with physiological hydrochloric acid, no free iron can be demonstrated with rhod-ammonium, and when heated to 40 degrees centigrade only a slightly red coloration appears; furthermore, the iron cannot be liberated by ammonia or alkaline carbonates.

Before offering ferro-somatose for clinical experimentation, it has been tried in a large number of cases of anæmia, in which it was always exceptionally well tolerated. In no case were any disturbances of the digestive apparatus experienced; on the contrary after the use of most iron preparations, a slightly laxative influence, which was always agreeable, was observed. Moreover, in all cases a considerable increase of appetite was noted, which in turn exerted a sensible influence upon the subjective condition and bodily weight. Regular determinations of the hemoglobin were made with the hemometer of Fleischl, which showed a rapid increase of the quantity of hemoglobin, as is illustrated by the following table of four cases exhibiting the lowest percentage of hemoglobin :

	Week.	A.R.	H.K.	B.K.	H.B.
Age, - -		15	15½	15½	16
Weight in kilo,	1	49.0	56.5	44.0	51.9
	4	50.2	59.0	46.5	53.7
Hemoglobin,	1	32	58	41	45
	2	44	—	51	56
In per cent,	3	51	70	60	64
	4	60	74	66	76

From these numbers it appears that in markedly chlorotic girls an increase of bodily weight of, on the average, 2 kilogrammes, with an increase of the hemoglobin percentage of 30 per cent., on the average, occurred in the short period of four weeks, without any alteration of the mode of life, and under the daily administration of 5 grammes of ferro-somatose during the first, 10 grammes during the second, and 15 grammes during the following weeks.

These results would seem to show that in ferro-somatose iron is contained in a readily assimilable form, and in one which acts extremely favorably in the formation of blood coloring matter.

Drugs Useful in Proportion to their Need and the Quantity Borne by the Patient.

A writer in the Medical Herald states that those drugs which are most useful in the treatment of disease are, many of them, efficient only in proportion as they are well borne in full doses. This is true of iron, cod-liver oil, quinine, creosote, mercury, potassium iodide, opium and cocaine.

It is equally true that these remedies do danger only in proportion as they are not indicated in treatment.

Special attention is here directed to the drugs opium, and cocaine.

The individual who really needs opium or cocaine is not likely to form a habit from their use. In the severe pains of acute disorders the drug habit is seldom, if ever, formed. It is in those cases where pain is magnified or imagined that the danger lies, and it is in these very cases that the ordinary doses of anodynes, such as morphia, fail to produce its usual results.

A small dose of apomorphia will give vastly more satisfactory results in such cases.

Cocaine, as a local remedy, is indicated where membranes, as of the eye,nose, throat or stomach, are greatly congested, and here, fortunately, only beneficial results occur.

The congestion of such membranes is much lessened and the pain relieved while little of the drug is absorbed. The indications for the use of the remedy being past, the patient no longer desires it. It is a fact recently observed by the writer, that cocaine habitues use weak solutions of the drug in their atomizers, and for the following therapeutic reason : Strong solutions produce rapid constriction of the superficial vessels and little of the drug is taken into the system, while weak solutions admit of much larger quantities being absorbed because of the less acute construction of the blood vessels.

Treatment of the Umbilical Cord.

Rouchon, in the British Medical Journal, recommends a bandage or wad of absorbent wool soaked in five per cent. picric acid (2½ grains to the ounce of water), and then carefully squeezed out, and finally covered with aseptic cotton without the interposition of any impermeable material. He states that it ensures antisepsis, obviates the too rapid desiccation which produces a brittle stump liable to cause hemorrhage on the slightest provocation, does not hinder the separation of the cord on the sixth or seventh day, and leaves then a hard and complete cicatrix. It is furthermore absolutely harmless. The dressing should be changed every two or three days, more often if soiled with urine ; if necessary, however, a single dressing will suffice. The more often it is changed the later the separation of the cord, which is usually on the fifth to the seventh day when this method is followed.

To Determine the Death of the Fetus.

Knapp has shown that the death of the fœtus is accompanied by the appearance of acetone in the urine of the mother. This may easily be demonstrated by the fuchsin test of Chautard. A solution of fuchsin, 1 to 2,000, is decolorized by sulphuric acid. To make the test, half an ounce of urine is poured into a test tube, and a few drops of the fuchsin solution added. If acetone is present, the color of the urine becomes violet, the depth of the color depending on the quantity of acetone. This simple test is within the reach of every practitioner.

Worry, as a Cause of Indigestion.

Worry is one of the most prolific causes of indigestion. Many patients present themselves to be relieved of dyspeptic troubles to whom we give remedies which have served us well, and yet we effect no permanent cures. Why? Because the cause continues to operate.

Perhaps the patient sits down to a hurried solitary meal, brooding over the troubles of his business while he munches. Or, perhaps he is one of those unfortunate men whose families drag the household skeleton with them to the table.

In such cases the blood is not in the stomach, where it is due to stimulate secretory activity, thrashing over useless chaff. "Smart is the man who lets not his enemy worry him." Worry never did, and never will accomplish anything save wear and tear. There is always a good side. Look for it and dwell on it. When you must take forethought, do not choose meal hours or the silent watches of the night.

Many a doctor goes to bed at night, and instead of closing the mind up promptly, he begins to review his day's work, and to consider what he shall do on the morrow.

There is a time for everything. Be orderly and systematic in the inner as well as the external life.

Give your patients a little philosophy along with your drugs. Good fellowship is the very best sauce for viands. It should be served daily in every home. The laugh and jest which drive away care insure digestion and prolong life.

Sulphate of Duboisin.

J. H. Skeen has used sulphate of duboisin for some time, administering it hypodermically and by the mouth, generally in doses varying from gr. 1–100th to gr. 1–32d, though he has given as much as gr. 1–24th at one time. (British Medical Journal) The hypodermic method is the safer, and is followed by fewer bad consequences. The following is a summary of the effects of the drug in the author's experience:

Within fifteen to thirty minutes of hypodermic administration of a single dose aggravation occurs, the pupils become dilated and the face flushed. Cardiac action becomes more rapid accompanied by a full and soft pulse. Speech becomes thick, drawling and slow, and, if the dose be large, inarticulate. The mouth and throat are dry, and the gait ataxic, the general appearance of the patient much resembling that characteristic of alcoholic intoxication. The excitement, rapidly passing off, is followed by drowsiness and a feeling of calm, which is followed by sleep, varying in duration from three to ten hours. There is no recurrence of excitement when the patients are roused from sleep; the only bad effects are dryness of the throat, and in some cases slight impairment of vision and occasional slight headache. There is no impairment of appetite. This is the general action of a single dose of the drug, except in a certain class of cases to be mentioned later. If given internally there is impairment of the appetite, with a tendency to faintness and vomiting. Continuous administration is not successful; there is quiescence while the patient is under the influence of the drug. There is weak pulse and tendency to faintness. Marked ataxia is also present. Hallucinations of sight and hearing occurred in some of the cases so treated. Loss of weight sets in rapidly, but is easily recovered from. Duboisin was used in all cases in which marked excitement was a symptom. In acute mania its use was not followed by any beneficial results. Single doses, though producing quiet for a time, seemed to cause more excitement after. If continuously administered, it induced rest and quietness, but a rapid loss of weight set in, which necessitated a suspension of the drug. In delusional mania it was used only if required for outbursts of excitement; its action was entirely satisfactory. Excitement which would ordinarily have lasted weeks was cut short. Other sedatives did not have this effect. In chronic mania its occasional use was followed by satisfactory results. In general paralysis duboisin was used during violent excitement, both occasionally and continuously, with satisfactory results. On one occasion a congestive seizure followed the exhibition of gr. 1–32d of the drug.

In epilepsy duboisin is not of much use. Its action is uncertain, some cases of epileptic excitement being relieved, while in others the excitement was increased. It doos not appear to have any action in altering the frequency of the fits. In melancholia the worst possible results were obtained. In no single case was there the least relief, while in most the excitement was increased. There was a tendency to syncope, and in some cases hallucinations of sight and hearing were observed. In dementia, used occasionally, it gave satisfactory results, insuring quietness and rest at night.

Dangers: If carefully used these are few. Cases of valvular heart disease have received the drug without any bad results. Cardiac failure occurs when it is continuously administered, especially if given internally, and is due to too large a dose being used. One case (acute mania) in which the drug was pushed suffered from a slight convulsive seizure, characterized by twitchings of the muscler of the face and limbs. Increased excitement occurs in some cases not tolerant of the drug.

Indications for and against its use: Cases of excitement due to hallucinations and delusions give excellent results. In all forms of chronic insanity with excitement, and in occasional cases of epilepsy, it may be used as a sedative with good results.

The author concludes that duboisin should be used only in physically healthy persons. It should never be used, or only very carefully in debilitated perons. It is not suited to acute mania, and is distinctly injurious in melancholia. Duboisin, Skeen thinks, is preferable to hyoscine or hyoscyamine, as the quiescent state established by its use is of longer duration, and there is less prostration during or after its use than is the case with those drugs. The after-effects are not so marked, and few serious cases occur. Its action in some of the worst cases is described by the patients as soothing rather than prostrating, and it does not interfere with the recovery of those treated with it.

Total Extirpation of the Uterus.

Dr. Martin, (St. Louis Medical Journal) at the last International Medical Congress, stated that the total extirpation of the uterus would soon be accepted as one of the principal operations for the surgical treatment of uterine fibromata. In a series of twenty-six cases Dr. Martin had only one death, or a mortality of 3.8 per cent. Dr. Ott had one death in a series of twenty-four cases. Bantock reported twenty-three cases with one death. Leopold had twenty cases and no death, making in all 225 cases with six deaths. In Europe five years ago, the mortality in this class of operations was 25 per cent., while now it is less than eight per cent. In the United States three years ago, there were 22 deaths out of 281 cases, a mortality of 7.8 per cent. The mortality is probably less at the present time. The author was desirous that other cases should be reported, and that the subject should be freely discussed.

Insufficient Nourishment in Young Children.

Dr. Seydel says that in all cases in which death is brought about in young children by insufficient nourishment, total disappearance of the thymus gland is an invariable phenomenon. Whether this disappearance may not also be brought about by exhausting diseases, such as fevers, requires further observation. It is to be accepted as probable, as the thymus gland must be looked on as, to a certain extent, a reserve material; and it is highly probable that it is drawn upon to supply nutrient material that may be wanting. Where organic changes are absent, and where on section of emaciated children there is absence of the thoracic glands, it may according to the author's observations, be taken as a more certain sign of exhaustion by deficient and unsuitable nourishment than narrowing of the lumen of the intestine, which in point of fact is, as a rule not present.

Quinine Blindness.

Dr. Calhoun, in the Ophth. Record, in describing an unusual case of this character, says:

A ten-year old girl from the river bottoms of Arkansas, living in a flat section of country, upon the banks of a river, where, in consequence of the prevalence of malarial fever, the inhabitants were accustomed to use quinine freely.

The patient had a chill which was diagnosed by the father as congestive, and large doses of quinine were frequently given, until, at the end of the third day, the child had taken 720 grs.

The patient becoming unconscious, the father called in the family physician, who restored her to consciousness, after several days of vigorous treatment; but she was totally blind. In consequence of her poor health the eye was not examined until six weeks had elapsed, at which time there was a typical white atrophy of both optic nerves, the blood vessels of the fundus were diminished to mere threads, and there was not the faintest perception of light. The pupils were widely dilated and responded to light very imperfectly. The hearing had been greatly affected, but was much improved.

Strychnia, electricity, and general tonics were used for three or four weeks, but the total blindness remained permanent.

I have given your Bromidia with success as a remedy for Insomnia, especially where produced by excessive study or mental work.

Dr. Luigi Salucci,
Physicians to the Holy Apostolic Palaces,
The Vatican, Rome.

Sept. 1, 1897.

"WELL PREPARED!! NUTRITIOUS!! EASILY DIGESTED!!"

HIGHEST AWARDS WHEREVER EXHIBITED

THE WORLD'S COLUMBIAN COMMISSION.

IMPERIAL GRANUM

THIS STANDARD PREPARED FOOD

IS EARNESTLY RECOMMENDED as a most reliable FOOD for INFANTS, CHILDREN and Nursing-Mothers;— for INVALIDS and Convalescents;—for Delicate and Aged persons. It is not a stimulant nor a chemical preparation; but a PURE, unsweetened FOOD carefully prepared from the finest growths of wheat, ON WHICH PHYSICIANS CAN DEPEND in FEVERS and in all gastric and enteric diseases. It is easily digested, nourishing and strengthening, assists nature, never interferes with the action of the medicines prescribed, and IS OFTEN THE ONLY FOOD THE STOMACH CAN RETAIN.

IMPERIAL GRANUM SEEMS TO HOLD FIRST PLACE IN THE ESTIMATION OF MEDICAL OBSERVERS.—"*The Feeding of Infants,*" *in the New York Medical Record.*

IT CONTAINS NO TRACE OF ANY IMPURITY.—*The Lancet, London, England.*

A valuable aid to the physician in the treatment of all the graver forms of gastric and enteric diseases.—*The Prescription.*

As a food for patients recovering from shock attending surgical operations IMPERIAL GRANUM stands pre-eminent.—*The International Journal of Surgery, New York.*

Not only palatable, but very easily assimilated.—*The Trained Nurse, New York.*

IMPERIAL GRANUM is acceptable to the palate and also to the most delicate stomach at all periods of life.—*Annual of the Universal Medical Sciences, Philadelphia, Penna.*

Endorsed by the best medical authorities in this country.—*North American Practitioner, Chicago, Ills.*

It has acquired a high reputation, and is adapted to children as well as adults—in fact, we have used it successfully with children from birth.—*The Post Graduate Journal.*

It has steadily won its way, step by step until it now stands unchallenged at the head of all food preparations.—*The Medical Council, Philadelphia, Pa.*

Especially valuable in fevers, and often the only food the stomach will tolerate in many gastric and enteric diseases.—*Dominion Medical Monthly, Toronto.*

There is no better prepared food.—*The Medical Mirror, St. Louis, Mo.*

It enjoys so widespread an endorsement from the medical profession that its reputation is beyond dispute.—*American Medico-Surgical Bulletin, New York.*

We have used it with the best possible results in several cases of summer diarrhoeas in children.—*The Western Medical Journal, Fort Scott, Kansas.*

It is peculiarly adapted to most of the diseases of infancy and childhood that have originated in the use of improper food.—*The St. Louis Medical Era.*

It is one of those rare preparations that never disappoint—but is all that is claimed for it—*Maryland Medical Journal, Baltimore, Md.*

IMPERIAL GRANUM has stood the test of many years, while many competing foods have come and gone, and have been missed by few or none. But it will have satisfactory results in nutrition far into the future, because it is based on merit and proven success in the past.—*The Pharmaceutical Record, N. Y.*

★ 'Physician's-samples' sent free, express-paid, to any physician—or as he may direct. ★

JOHN CARLE & SONS, Wholesale Druggists, 153 Water Street, NEW YORK CITY, N. Y.

Pathology of Syphilis.

Stassano puts forward some new views on the pathology of syphilis. (British Medical Journal, Dec. 25, 1897). He draws attention to the gradual tendency of the parts affected by syphilis to become immune to further attacks, chiefly as regards the skin. The early secondary lesions invade the skin symmetrically; later eruptions are more and more limited as parts of the skin previously affected become immunised. The primary chancre he regards, not as a local result of the syphilitic virus but as a secondary lesion caused in the following way: The swelling of the inguinal glands forms the first line of defence against the syphilitic virus, and owing to the barrier caused by them the virus is diverted into the blood vessels of the same region instead of getting into the general lymphatic circulation. The virus takes action in the superficial capillaries of the skin and mucous membrane, reeulting in the formation of the chancre.

This view of the secondary nature of the chancre is supported by (1) its vascular origin; (2) the authentic occurrence of cases where chancre is absent, and further by the fact that in these cases secondary lesions are also absent, the subjects having a natural immunity of skin and mucous membrane against the virus; (3) a solution of continuity is not necessary for the formation of a chancre, as is shown by chancres of the tonsil, where such solution of continuity cannot occur. The method of infection, according to him, is as follows: During an infective coitus there is extravasation of lymph and leucocytes by retarded lymphatic circulation; the extravasated leucocytes, carrying the syphilis microbes with them, migrate across the mucous membrane, and are thus transformed into propagators of the disease instead of acting as phagocytes. Stassano points out that the severity of the disease depends inversely on the amount of adenitis, this being directly proportional to the strength of the phagocytes, and showing strong reaction of the organism against the virus. This explains the greater severity of the disease in adults compared with young people, the glandular activity being more marked in the latter.

In tertiary syphilis there is formed an additional toxin having necrotic powers, and causing affections of internal organs, thus differing from the toxin of early syphilis. Concerning the symmetrical character of tabes dorsalis compared with other tertiary nervous lesions, he explains this by a slower process of immunity occurring in cases which have only had very mild secondaries. Concerning the absence of skin affections in the early stages of hereditary syphilis, he thinks this due to placental transmission of immunisation of skin and mucous membranes acquired by the mother following eruptions which she has had before or during gestation. He does not, however, explain cases in which the mother shows no secondary eruptions. This hereditary immunity is usually of short duration, and about the second or third month eruptions usually appear on the infant. Sometimes, however, it may persist by a process of auto-inoculation, so that infants who escape eruptions in the first three months are generally free altogether from them. This immunity is, however, confined mainly to the skin. With regard to serum-therapy, Stassano points out what a powerful microbe we have to deal with, although not a definitely known one. It resembles the tubercle bacillus in its power of resistance to phagocytes, and the power of transmission by sexual cells from one generation to another. Like the bacillus of Influenza, it combines great toxic power with limited extension of its zones of infection, whereby it avoids exhausting its nourishment. and also a general invasion of the organism in which it might succumb. The toxin exercises its morbid action at long intervals, and eventually conquers the resistance which is established in the early stages in the diseased tissues. Like the bacillus of diphtheria, it has great necrotic powers. Having to do with such an organism, Stassano says: "How can we expect to get any curative effect from the few cubic centimetres of blood which we can withdraw from a syphilitic patient? Moreover there is a great extent of tissue to render invulnerable, and great stability is necessary to give power of resistance against the repeated attacks of the toxins continually produced. Inoculation with tertiary serum is out of the question, because of the necrotic power of its toxin; in fact, Stassano thinks no serum obtained from syphilitics of any use. Finally, he concludes by suggesting that a combination of the empirical treatment and certain serums might be carried out, with a view to exalting the natural defence of the organism by phagocytes. He considers that mercury acts in this way.

Dr. J. B. Shupe, Westernport, Md.

"I have been using the Aseptolin on a case very far advanced in tuberculosis, and I am happy to inform you of the fact that he is improving rapidly."

The Treatment of Exophthalmic Goitre.

One of the indirect consequences of the comparatively satisfactory explanation and altogether satisfactory treatment of myxœdema seems to have been to invest with additional investigative interest other disturbances in which the typhoid gland plays a part. (Treatment, Dec. 29, '97.) The occasional success which has attended removal of the organ in Grave's disease appears to indicate that in many, if not all cases, disturbance of secretion in it, lies at the bottom of the manifested clinical phenomena. Ablation, partial or complete, has, however, proved sufficiently often fatal to cause surgeons to enquire whether there be not some safer method of diminishing the exaggerated secretory activity of the organ. Among these, various forms of section of the cervical sympathetic have been advocated and practiced. Mr. Jaboulay claims that to him exclusively belongs the credit of having shown that paralysis of the fibres of the cervical sympathetic ameliorates the symptoms of exophthalmic goitre. He mentions some particulars of the usual cutting, tearing, wrenching and squeezing methods which have been practiced by surgeons in this region of the body. A ganglion more or less cleared out seems to be all in the day's work, and then the operator seems to adopt a sagacious Micawber-like attitude and waits for something to turn up. It does, I suppose, sometimes, but it seems also to be necessary to enter a word of caution when these heroic methods are in the air. In the first place, what does the surgeon aim at beyond the broad fact of reducing somehow the complex of symptoms constituting the disease? Does he expect to diminish the glandular activity of the thyroid? If so, how does he know that the sympathetic is the chief secretory nerve involved? That it may to a certain extent have such a function may from analogy with other glands be admitted; but that it is the chief secretory nerve may be certainly denied. The secretory nerve of the thyroid gland is in all probability, the pneumogastric, and if nerve section for this purpose is to be practiced, it would seem that the sooner the surgeon pays attention to the thyroid branches of the pneumogastric the better, always supposing that the manipulations involved do not so disturb the main trunk as to cause—well, an inconvenient duration of cardiac inhibition. If on the other hand his object be to quiet the tachycardiac heart, it would seem a pity that the patient should have to part with so much of his indispensable nervous system to secure that end. If, finally, he aims at the removal of exophthalmos, inasmuch as the sympathetic is essential to vaso-constriction, it would seem unfortunate that he should give a free hand to vaso-dilators and over-secretors by destroying the sympathetic. If there be any cogency in these comments it would appear advisable, in the mean time, that the surgeon and the physician alike should restrict their endeavours to diminishing if possible, and by less heroic means, the secretory activity of the gland. I have known the electrical treatment of the thyroid (galvano-puncture) shrivel a large gland causing respiratory difficulty, to a mere nodule, and belladonna, from the days of Begbie till now, has apparently been capable at times of diminishing thyroid secretion just as it does that of the salivary and pharyngeal glands.

Anæsthesia for Children.

Farquhar, in the Post Graduate, says that children are not very sensitive to pain, and can easily be held still, the amount of the anæsthetic used may be much less in proportion than in the adult. But really severe pain will cause the pulse to fail, and care must be taken not to be too sparing of the anæsthetic in such cases. The choice of anæsthetic is not important except where it is probable that a bronchitis such as is apt to follow ether would be exceptionally dangerous, in which case chloroform is preferable. Chloroform is excellent for cases where short or slight anæsthesia is desired, and also when the large ether cone is in the way and complete exclusion of air is difficult because the operation is performed on the mouth or nose, as chloroform can be given on a small cloth and does not require exclusion of air. Ether is, however, the anæsthetic in general use, and we only occasionally find it objectionable.

Euphthalmin in Mydriasis.

At a meeting of the Medical Society of Giessen on June 29, 1897, Dr. Vossius reported that a 2 per cent. solution of Euphthalmin had been successfully employed for production of mydriasis. Two or three drops of the colorless solution in the eye produces a medium degree of mydriasis within twenty to thirty minutes, and disappears entirely in two or three hours. No pain nor other unpleasant effect follows the instillation, and the accommodation is unaffected. Euphthalmin is specially useful in ophthalmoscopic examinations, where the constricted pupil renders such an examination difficult in consequence of the temporary effect upon the pupils and the absence of disturbance of the accommodation. —*Deutsche med. Wochenschrift*, *No. 28.*

Asses' Milk for Infants.

Klemm, according to the Practitioner, urges the claims of the once fashionable but of late years much-neglected asses' milk as the best food for young infants. Tuberculosis is, he urges, unknown in the ass; the milk resembles that of the human female in reaction, in chemical composition, and in its behaviour in natural and in artificial digestion. This similarity is most marked in the character of the casein and in the relative proportions of casein and albumen—a point of the highest importance, and that in which cow's milk differs most from woman's. Not needing dilution, as cow's milk does, the excess of water necessarily given with the latter, and the consequent diuresis familiar to mothers and nurses of bottle-fed infants, is avoided. Its only defect is in the lower percentage of fat, which, though not felt in the first three or four months of life must be compensated in some way later. This question he leaves unsolved; but we would suggest the simple addition of fresh cream, which, besides the fat, contains practically the whole of the albumen present in the milk, while if the separator be used instead of the old process of skimming, none of the casein. We may take this opportunity of urging that whenever it is deemed expedient to give cream to infants separated cream should be insisted on, since it is obtained from perfectly fresh milk, whereas the cream does not rise spontaneously so as to admit of its removal by skimming until lactic-acid fermentation has commenced. The albumen, which is the chief nitrogenous constituent of woman's milk, and incomparably more easily digested by the infant than any casein, especially that of cow's milk, is present in cow's milk almost exclusively in the form of the envelopes of the fat globules, by which their integrity and suspension is maintained, until broken in the process of churning, when they blend to form butter.

Indications for Hysterectomy.

The following indications are suggested by Dr. John Hamans (Medical Standard):

1. Intractable, often recurring hemorrhage without discovered fibroid or malignant disease, when all the usual remedies have been tried, and curetting has been done every few weeks without permanent success. Clinical reasons prevail over histological and practical over theoretical.

2. In all kinds of malignant disease, when the operation is possible without permanent injury to the bladder or bowels, even if there is little hope of permanent cure. The hemorrhage may be stopped, and there is less subsequent pain and discomfort than when the disease is left to run its natural course.

3. (a) In a case of fibroid tumor which causes much discomfort or (b) threatens death by hemorrhage (and it sometimes not only threatens, but causes it as suddenly as does a pulmonary hemorrhage). (c) Because it may increase and become too burdensome to allow life to be worth living. (d) Because it may develop a cancerous character. (e) Because by pressure on the abdominal organs it may destroy life. (f) Because it may become cystic and thoroughly adherent. The author does not mean fibroids with dilated lymph spaces, but fibroids with cysts as clear and distinct as those of ovarian tumors. (g) Because it may be an ever-present anxiety. (h) Because it may cause edema of one or both extremities and phlebitis to be followed, perhaps, by the passage of an embolus into the circulation, causing death by cardiac, renal, pulmonary or hepatic disease. (i) Because it may become twisted with the uterus as a pedicle, and must be removed immediately to save life. (j) Because a very sensitive single woman, in good health and active, demands its removal on account of the disfigurement it causes. (k) Because the operation to-day in experienced hands is almost uniformly successful.

4. In cases of uncontrollable complete prolapse, particularly after the menopause, when pessaries and all the usual operations for holding up the uterus have been tried and found useless.

5. In case of incurable chronic inversion.

6. In case of infection, when the removal of the Fallopian tubes affected with salpingitis has not cured the patient.

7. To cure puerperal sepsis where the diagnosis is as certain as it can be.

Confidence Well Placed.

December 6, 1897.

JOHN CARLE & SONS,
NEW YORK CITY.

GENTLEMEN:—

You can be assured that I will prescribe the IMPERIAL GRANUM, whenever there is an indication for a prepared food, because I had sufficient confidence in it to give it to my own child, and it agreed with him perfectly, and he has increased in size and weight to an astonishing degree.

——— ——— M. D.

Physicians can obtain samples of this celebrated prepared food free, charges prepaid, on application.

Practical Evidence.

I used your sample of Resinol on myself for Pruritus Ani, which has been my curse for several years, defying all applications. The first application proved efficacious, and I am now using and prescribing Resinol for the above and several other itching troubles. In fact, I think it is the best remedy I have ever used for the diseases for which it is recommended.
H. B. LEIGHTON, M.D., Boston, Mass.

I have used your Resinol in Inflammatory Rheumatism with happy results. Hope others will try it. I know they will be pleased.
E. J. BURNSIDE, M. D., Phila., Pa.

It gives me pleasure to say that Resinol is the best application for local treatment of Eczema I have ever used. I can also bear testimony to its efficacy in Erysipelas, and its soothing and healing virtues in all inflamed surfaces.
A. S. FRENCH. M.D., Lawrence, Mass.

It is but just that I should attest my satisfaction with the use of Resinol. It is a marvel of efficacy in Pruritus Ani. In relief of soreness, due to scalding from acute Nasal Coryza, it acts like a charm.
J. H. THOMPSON, M.D., Goshen, N.Y.

Resinol is by far the best application I have ever used in a practice of 48 years for the diseases recommended. A case of Eczema commencing on the scalp and extending over the entire face and which had been under the treatment of various physicians with no apparent benefit, was completely cured by it in less than two weeks.
J. J. WORTHY, M.D., Lavalle, Wis.

I am very much pleased with the effects resulting from the use of Ung't Resinol in cases of Itching Piles, Pruritus Ani, and Vulvae, Eczema, Erysipelas, &c. In fact it is the remedy "par excellence" in all cases where there is a Congested or Hyperaemic condition of the capillary Blood Vessels. C. D. SMITH, M.D., Atlanta, Ga.

I frequently prescribe Resinol, and am well pleased with its work. It has proved very useful in many forms of eruption of the skin, and especially so in Pruritus Vulvæ or Ani, and in Eczema of other parts of the body.
LUCY HALL BROWN, M.D., Brooklyn, N. Y.

I take pleasure in stating that I have found Unguentum Resinol almost a specific for Pruritus Ani, Itching Piles and Marginal Eczema.
HENRY HUG, M.D., Detroit, Mich.

Resinol is a harmless antiseptic and a true skin anæsthetic, absolutely non-irritant and non toxic (free from lead, mercury, or cocaine), can be applied to mucous, excoriated or denuded surfaces of any extent at any age without fear of untoward results, and is not contra-indicated by any internal medication that may be deemed advisable.

Resinol is put up in *one ounce* jars at 50 cts. each, and can be obtained at any drug store. **Sample** sent **free** on application, or **one** regular size jar for trial on receipt of 25 cents.

RESINOL CHEMICAL CO., Baltimore, Md.

Antipyrine an Excellent Stimulant for Atonic Ulcers of the Leg.

By Bosse, of Domnau (Berl. klin. Wochenschr.)

In a case of hemorrhage from ulcer of the leg, antipyrine, spread on a piece of cotton wool, was applied. After a few days, on removal of the cotton wool, it was seen that the place was covered with splendid healthy-looking granulations. The author now spread antipyrine over the whole ulcerated surface, which possessed the size of the palm of the hand. After ten days this large surface was covered with solid granulations, and after twenty-two days the ulcer had completely healed by the aid of an ointment containing 2 per cent. of nitrate of silver.

A similiarly successful treatment was carried out in 29 other cases.

The application of antipyrine, which was repeated every day, caused considerable pricking and burning pain, which lasted for 5 to 15 minutes. This pain disappeared as soon as the drug had become liquefied. It was considerably lessened by previous application of cocaine.

Signs of inflammatory reaction were never observed. In all cases where inflammatory signs existed already, and the ulcer was very painful, the extremity œdematous and the ulcers covered with sloughs and fœtid discharge, it was found better to advise absolute rest and to begin with the treatment by disinfectant and soothing applications. When all signs of inflammation had disappeared, antipyrine was dispersed over the ulcers.

When, after using antipyrine, the granulations have become solid and abundant, treatment with various ointments, esp. arg. nitrate ointment, is recommended.

["The Multiform Uses of Antipyrine," a 40 page book, giving particulars of the employment of this drug in the various fields of medical and surgical practice, will be sent upon request.—EDITOR.]

DR. J. R. HUNDT, Laurel, Md.

"My patient is a young lady, aged 21 years, who has had a severe cough for the past year. My diagnosis was tuberculosis. In March I began giving her Aseptolin and in the course of a few days the cough became slight, and now after 14 injections, she seemed to be gaining in every way."

An Argument.

It is the opinion of eminent gynecologists that the surgical treatment of the diseases of women has been largely overdone, and that much useless mutilation has been inflicted in cases which could have been treated more safely and effectively by local applications.

Conservatism is again becoming the watchword and the medical profession is recognizing the fact that the knife should be resorted to only when medicinal treatment has failed. When it is considered that congestion and inflammation constitute the chief element in many genital diseases, it is easy to understand why Micajah's Medicated Uterine Wafers have effected so many radical cures. and have proved so often an efficient substitute for surgical measures. These wafers exert a specific influence in relieving congestion, reducing inflammation and re-establishing normal conditions of the affected mucous membranes. Under their influence, pain and other discomforts are alleviated, discharge caused to disappear, and exudates absorbed. They act safely, efficiently and agreeably in all cases where an antiseptic, astringent and general tonic and alterative action upon the genital organs is indicated.

Their particular sphere of usefulness is in Vaginitis, Leucorrhœa, Endometritis, Prolapse of the Uterus and Menstrual Disororders, especially those incidental to the menopause.

A Vital Question.

In a recent exhaustive article on the alarming question of food adulteration. The Medical Progress says: "If food that should be pure, especially when it is required for the sick, is thus adulterated, how are we to expect the recovery of our patients? The best way out of the dilemma is for the physician to insist that his patients shall have only such products as are prescribed and recommended by him! There is one article of diet that can be relied on whenever a nutriment is needed for the invalid, and it is the Imperial Granum Food, a wheat preparation of absolute purity, that is especially beneficial in all gastric and enteric troubles."

The preparations of "Pepsin," made by Robinson-Pettet Co.. are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house. (See page 12).

A Helpful Publication.

Among the publications which reach our editorial desk is a modest monthly of 8 pages entitled "Therapeutic Progress" published by Victor Koechl & Co., 79 Murry St. New York. It is devoted to a consideration of the newer remedies imported by this firm among which may be mentioned Argonin, Benzosol, Diphtheria Antitoxine— "Behring, Tuberculin— "Koch" and others. Antipyrine, Lanoline and Dermatol are also included among the valuable preparations for which the above firm are Sole Agents for the United States. One particuliarly desirable feature of "Therapeutic Progress" is the condensation of reports, etc. into as small a compass as possible, all useless elaboration and padding being eliminated. The publishers will be glad to mail copies regularly, free of charge, to any physician who may desire to have it. We have, from time to time, gleaned valuable and practical therapeutic hints, from its perusal. Address, Victor Koechl & Co., 79 Murray St., New York.

Ophthalmia Neonatorum.

The law of many States require the Obstetrician to use prophylactic measures to save the sight of newly borne infants. A safe, harmless and positive procedure is the thorough cleansing of the conjunctive with a 25% solution of "Palpebrine" and the application of a few drops full strength into the eyes shortly after birth. Many physicians make it a routine rule to use "Palperbrine" even if there is no evidence of liability to infection. "Palpebrine is an Antiseptic, Germicide and slightly astringent solution. The Dois Chemical Co., St. Louis, will mail sample and formula on application.

The Half Century Mark Reached--Established in 1848.

The Tilden Company, New Lebanon, N. Y., enter with the New Year upon their fiftieth anniversary as Manufacturing Pharmacists.

The first to place upon the market Fluid Extracts, Sugar Coated Pills, Florida Waters, etc. No better goods are offered, and none enjoy a more enviable reputation with the profession.

They have, within the last five years, established a branch house in St. Louis for supplying the western and southern trade.

Results From the Administration of Iron in a Readily Assimilated Form after Gynecological Operation.*

Some few months ago, I had the misfortune of having a patient lose a comparatively large amount of blood after a trivial operation. In spite of the weakened condition of her stomach, I tried iron, as the quickest acting tonic, to counteract her anæmia. The results were so extraordinarily good and her general appearance improved to such a degree that I decided to put all my patients on the use of the same preparation after any operation, and to carefully note the good or bad results of its administration.

To further guard against making any allowance to my enthusiasm, I had the blood of some patients at the New York Post-Graduate Hospital tested by Dr. H. T. Brooks, the director of its pathological laboratory, and similar tests at St. Mark's Hospital made by the pathologist, Dr. Geo. Lindemeyr. Some cases were kindly loaned me for observation by Dr. H. J. Boldt, Dr. J. R. Nilsen, and Dr. Carl Beck, to all of which gentlemen I hereby once more acknowledge my indebtedness.

The preparation used in all cases was the peptonate of iron and manganese, made according to Dr. Gude's formula and known for short as "Pepto-Mangan Gude."

The results as found have shown me and will convince you that it is not only possible but highly beneficial to feed a patient on such tonic immediately after an operation and during her convalescence, as a routine treatment.

In only one case, that of a twelve-year old girl, referred to me by Dr. Beck, an account of which is appended here, had the administration to be suspended because it was not well borne.

In no case was constipation observed, nor was the Pepto-Mangan taken with aversion.

The period of trial varies, from twelve days to forty-four days. Quite a number of patients disappeared before the second examination of blood could be made.

There have been examined twelve gynecological cases, among which is one check case. I append, however, as long as the examinations have been made by the pathologist, two general surgical and five medical cases.

Case I. (Post-Graduate Hospital), patient aged twenty-seven years. Ovariotomy. Time of administration, seventeen days. First count, 5,050,000 to the cubic millimetre; second count, 5,312,000 to the cubic millmetre.

Case II. (Post-graduate Hospital) patient aged twenty-three years. Laparotomy. Time of administration, sixteen days. First count, 3,600,000 to the cubic millimetre; second count, 3,870,000 to the cubic millimetre.

Case III. (Post-graduate Hospital) patient aged twenty-seven years. Alexander's operation. Time of administration, twelve days. First count, 4,437,500 to the cubic millimetre; second count, 5,670,000 to the cubic millimetre.

Case IV. (Post-graduate Hospital) patient aged thirty years. Oophorectomy. Time of administration, twelve days. First count, 5,250,000 to the cubic millimetre; second count, 5,400,000 to the cubic millimetre.

Case V. (St. Mark's Hospital) patient aged thirty-eight years. Excision of fibroid of cervix. Time of administration, twenty-three days. First count, 2,624,000 to the cubic millimetre; second count 4,450,000 to the cubic millimetre.

Hæmoglobin (percentage of normal amount): First examination, 35 per cent.; second examination, 60 per cent.

Case VI. (St. Mark's Hospital) patient aged eighteen years. Miscarriage after pneumonia at fifth month. Curettage. Time of administration, twenty-four days. First count, 2,432,000 to the cubic millimetre; second count, 3,842,0000 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examination, 34 per cent.; second examination, 55 per cent.

Case VII. (St. Mark's Hospital), patient aged twenty-five years. Vaginal hysterectomy. Time of administration, fourteen days. First count, 2,962,000 to the cubic millimetre; second count, 3,264,000 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examination 30 per cent.; second examination, 42 per cent.

Case VIII. (St. Mark's Hospital), patient aged twenty-three years. Pyosalpinx. Vaginal operation. Time of administration, twenty-four days. First count, 3,426,000 to the cubic millimetre; second count, 4,280,000 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examination, 40 per cent.; second examination, 62 per cent.

Case IX. (St. Mark's Hospital), patient aged twenty-one years. Emmet's operation. Time of administration, thirty-six days. First count, 2,351,540 to the cubic millimetre; second count, 3,740,000 to the cubic millimetre.

---

*C. A. VonRamdohr, M. D., New York Medical Journal.

Hæmoglobin (percentage, of normal amount): First examination, 35½ per cent.; second examination, 70 per cent.

Case X. (St. Mark's Hospital), patient aged thirty-seven years. Beck's operation. Time of administration, forty-four days. First count, 2,253,000 to the cubic millimetre; second count 3,420,000 to the cubic millimetre.

Hæmoglobin (percentage of normal amount): First examination 36½ per cent.; second examination 55 per cent.

Case XI. (St. Mark's Hospital), patient aged twenty-one years. Laparotomy for pyosalpinx. Time of administration, twenty-three days. First count, 2,680,450 to the cubic millimetre; second count 4,758,570 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examination, 33 per cent.; second examination, 70 per cent.

To convince himself and me that not all gynecological patients would have their blood-corpuscles increased at the same rate after an operative interference as after taking Pepto-Mangan (Gude) Dr. Brooks has kindly made this check test in

Case XII. (Post-graduate Hospital—control), patient aged twenty-eight years. Ovariotomy. Time in hospital, fifteen days. First count, 4,368,750 to the cubic millimetre; second count, 4,480,000 to the cubic millimetre.

Case XIII. (St. Mark's Hospital), that of a girl aged twelve years. Resection of tuburculous hip joint. Time of administration, seventeen days. First count 1,865,420 to the cubic millimetre; second count, 1,760,000 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examinarion, 32 per cent.; second examination, 32 per cent.

This is the only case where the use of the preparation had to be discontinued because the stomach rebelled, and where no improvement appeared.

Case XIV. (St. Mark's Hospital), that of a boy, aged fifteen years. Large punctured wound of thigh. Time of administration, fourteen days. First count, 2,480,000 to the cubic millimetre; second count, 3,200,000 to the cubic millimetre.

Hæmoglobin (percentage of normal amount): First examination, 30 per cent.; second examination, 42 per cent.

Case XV. (St. Mark's Hospital), that of a man, aged thirty-seven years. Anemia. Time of administration, twenty days. First count, 3,586,510 to the cubic millimetre; second count, 4,550,000 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examination, 52 per cent.; second examination, seventy-two per cent.

Case XVI. (St. Mark's Hospital), that of a woman, aged twenty-four years. Anæmia following malaria. Time of administration, twenty-four days. First count, 3,242,654 to the cubic millimetre; second count, 4,422,500 to the cubic millimetre

Hæmoglobin (percentage, of normal amount): First examination, 52 per cent.; second examination, 75 per cent.

Case XVII. (St. Mark's Hospital) that of a woman, aged twenty four years. Professional nurse. Anæmia. Time of administration, twenty-eight days. First count, 2,475,216 to the cubic millimetre; second count, 4,060,222 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examination, 42 per cent.; second examination, 62 per cent.

Case XVIII. (St. Mark's Hospital), that of a girl, aged nineteen years. Professional nurse. Anæmia. Time of administration, twenty-one days. First count, 2,640,100 to the cubic millimetre; second count, 4,135,000 to the cubic millimetre.

Hæmoglobin (percentage, of normal amount): First examination, 39 per cent.; second examination, 60 per cent.

Case XIX. (St. Mark's Hospital), that of a woman, aged twenty-five years. Professional nurse. Anæmia and gastric catarrh. Time of administration, thirty-five days. First count, 2,563,202 to the cubic millimetre; second count, 3,420,000 to the cubic milimetre.

Hæmoglobin (percentage of normal amount): First examination, 42 per cent.; second examination, 60 per cent.

These last seven cases do not strictly come within the scope of my paper, but still I was loath not to bring them out, and I am glad that Dr. Lindenmeyr in his zeal picked out these last three cases of hospital nurses for an experiment. You see how rapid their improvement was from the objective figures, more rapid than that of the women operated upon and I think for the reason that a certain amount of exercise in the open air helped, on the one hand, and the direct loss of blood impaired the multiplication of corpuscles on the other hand.

However, from the foregoing you will, I hope, agree with me that (1) it is beneficial to immediately put a patient, on whom an operation has been performed on the use of an easily assimilated iron preparation, and (2) Pepto-Mangan (Gude) seems to be such a rational ideal pharmaceutical preparation.

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Unnecessary Removal of Uterus.

Dr. Alex. Hugh Ferguson, of Chicago, cautions against removal of the uterus when operating for pus tubes alone. An analysis of his reasons presented shows the following: A. The mortality is higher, because (1) it takes longer to do the operation, with greater shock; (2) primary hemorrhage is greater and secondary more liable to cccur; (3) other parts, ureters, bladder, rectum, etc,, more liable to injury. B. Results are deplorable, even in non-fatal cases, because (1) the patient is, anatomically and socially less of a woman; (2) vagina is shortened; (3) hernia of vagina more likely to occur.

The doctor's belief is that a healthy uterus is often removed on account of the difficulty of diagnosticating, beforehand, the amount of disturbance caused by the inflamed tubes, ovaries and uterus respectively.

The natives of a village about fifty miles from Mexico, says The Medical Times, have taken a genuine Indian method of stopping the spread of smallpox, which appeared among them. The first man to take the disease was beaten to death, and they set fire to the house.

A physician who has just returned from a visit to Persia says that the Persians still believe that human tears are a remedy for certain chronic diseases. At every funeral the bottling of mourners' tears is one of the chief features of the ceremony.

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LITERATURE WITH FORMULA ON APPLICATION.

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And not only has it been a boon to tuberculous suffers, but to those suffering with equally dangerous diseases of a similar origin. Not satisfied with its success in this one branch of the field Dr. Edson has persistently applied it to all diseases originating from germ infection. From the nature of its consumption it acts as a powerful antiseptic and germ destroyer and carries out the line of research of the earlier investigators, who endeavored in every way known to science to inject solutions of carbolic acid into the blood circulation, but unfortunately with disastrous results. This fluid, a purifier solution of phenol and pilocarpin, has ended the chain of research, and fulfills in every particular the anticipated hopes of early scientists.

Curiously enough this solution of a powerful antiseptic, cannot only be injected into the circulation without any harmful results arising either internally or externally from ulcers and painful sores, but actually acts as a stimulant and heart regulator of unquestioned value.

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At the Fourth Annual Meeting of the American Medical Publishers' Association, held in St. George Hall, Philadelphia, on May 31st, the following resolution was introduced and adopted :

Whereas, The Imperial Granum Company has announced the withdrawal of all its advertising patronage from the Lay Press, and signified its intention of using Medical Mediums only in the future, therefore be it,

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Captain A. T. Mahan's "The American Navy in the Revolution," to be illustrated by Carlton T. Chapman, the marine artist; Harry Fenn, and others.

Thomas Nelson Page's First Long Novel, "Red Rock—A Chronicle of Reconstruction." Mr. Page has devoted four years to the story, and he considers it his best work. (Illustrated by B. West Clinedinst.)

Rudyard Kipling, Richard Harding Davis, Joel Chandler Harris, George W. Cable, and others are under engagement to contribute stories during 1898.

Robert Grant's "Search=Light Letters"—replies to various letters that came in consequence of his "Reflections of a Married Man" and "The Opinions of a Philosopher."

"The Workers" in a new field—Walter A. Wyckoff, the college man who became a laborer, will tell about his experience with sweat-shop laborers and anarchists in Chicago. (Illustrated from life by W. R. Leigh.)

The Theatre, The Mine, etc., will be treated in "The Conduct of Great Businesses" series (as were "The Wheat Farm," "The Newspaper," etc., in '97), with numerous illustrations.

Life at Girls' Colleges—like the articles on "Undergraduate Life at Harvard, Princeton and Yale," and is richly illustrated.

Political Reminiscences by Senator Hoar, who has been in public life for forty-five years.

C. D. Gibson will contribute two serial sets of drawings during '98, "A New York Day," and "The Seven Ages of American Woman."

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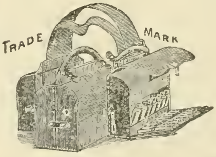

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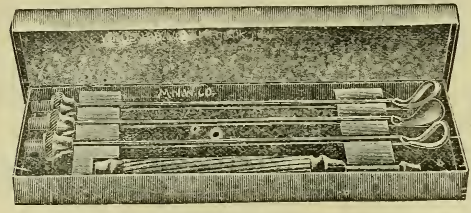

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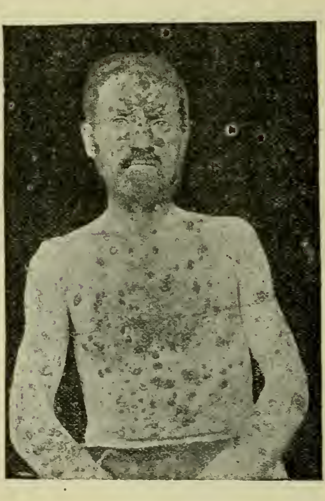

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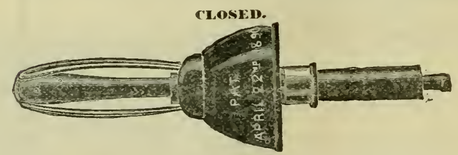

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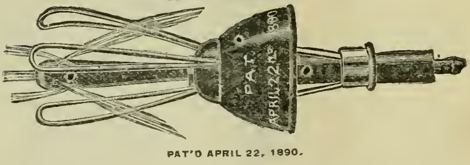

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Pneumonia Following La Grippe.

BY M. E. CHARTIER,

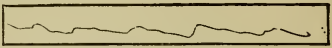
Docteur en Medecine de la Faculte de Medecine de Paris, Membre Correspondant etranger de la Grande Encyclopedie, Section de Philologie.

As a rule certain diseases prove more fatal, not only in given districts, but during certain periods of time, along particular areas of territory. We have La Grippe, decreasing in intensity for the present; it has been replaced by pneumonia, which is not only raging in the United States, but in European countries. The bacteriologists will have to explain this fact; the truth remains however, that the mortality from pneumonia in its various forms is now far in excess of any previous record.

Twenty years ago, and preceding the re-appearance of La Grippe in its epidemic form, pneumonia proved as dangerous as it does at the present time. Many cases fell under my personal observation, and I must admit that my Parisian confreres were at a loss, not for a remedy for the disease alone, but even for a logical line of treatment. Dujardin-Beaumetz became so skeptical that he prescribed stimulants, regardless of therapeutical conditions. The mortality in his ward at the Hotel Dieu proved that his patients fared no worse than the others submitted to the antiphlogistic remedies then en vogue.

At that time, I advocated in my treatise on therapy, the administration of sulphate of codeine in two to five centigrammes doses—one-fourth to one-half grain. Codeine is the only remedy known to me possessing a marked and distinct effect upon the hypersecretions of the bronchial mucous membrane. What I then wished was an analgesic possessing antipyretic properties, which I could safely use. This I have since found in antikamnia and I believe it can be exhibited safely, especially on account of its not having a depressing effect on the cardiac system.

Experimental doses of from one-half to one gramme—seven to fifteen grains—of antikamnia administered under ordinary conditions did not develop any untoward after-effect. The following trace, taken with the sphygmograph was made ten minutes after the administration of one gramme—fifteen grains—of antikamnia.



Pulse, 112. Temp., 101 1-5 Fahr.

The above trace shows plainly that unlike other coal-tar products, antikamnia has a stimulating effect upon the circulation. In this particular case the temperature was sensibly reduced—102° to 101 1-5°. The analgesic effect of the drug was satisfactory.

My conclusion is that in the treatment of pneumonia, antikamnia is indicated as a necessary adjunct to codeine, on account of its analgesic and antipyretic properties and particularly because it acts as a tonic upon the nerve centres. The tablets of antikamnia and codeine containing four and three-quarter grains antikamnia and one-fourth grain sulphate of codeine, to my mind, present these two remedies in the most desirable form. I also find one tablet every hour, allowed to dissolve slowly in the mouth, almost a specific for the irritating cough so often met with in these complications. For general internal medication, it is always best to crush the tablets before administration.

Constipation.

Constipation is the "bete noir" of the home; regarded by physicians as being probably the most potent factor in causing and inviting other diseases. A remedy which will help the doctor to educate the members of the families under his care, in the direction of a regular habit as regards the evacuation of the bowels, is desirable. "Syrup of Figs," as furnished to the medical profession and to the public, seems to the practising physician to be almost an ideal domestic or family laxative.

The California Fig Syrup Co. have frankly announced that their product, "Syrup of Figs," has, as its most energetic laxative agent, the active principle of Alexandria senna, which is the best senna in the world. "Syrup of Figs" is simple, safe, and reliable as a laxative; does not irritate or debilitate, does not disturb digestion, and favors the regularity of habit, so much to be desired.

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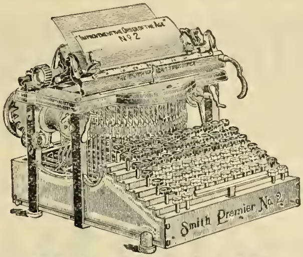

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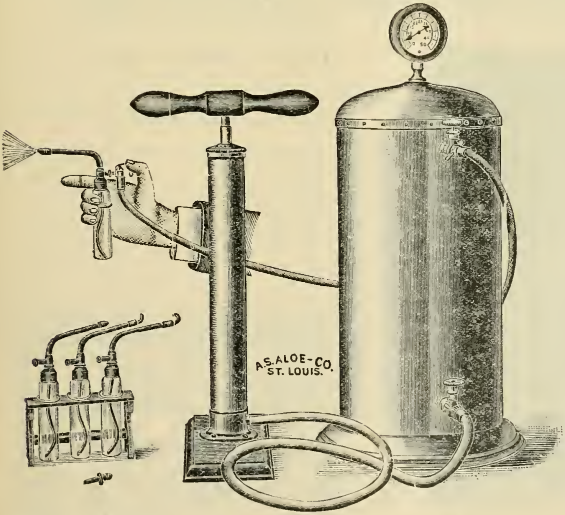

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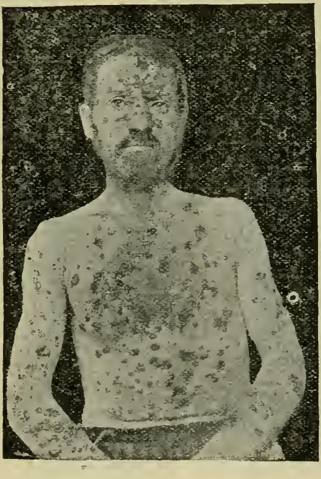

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Arsenici Iodidum	1-24 grains.
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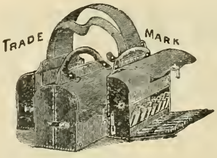

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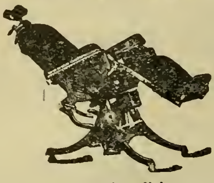

Fig. V.—Semi-Reclining.

1st. Raised by foot and lowered by automatic device.—Fig. I.
2d. Raising and lowering without revolving the upper part of the chair.—Fig VII.
3d. Obtaining height of 39½ inches.—Fig. VII.
4th. As strong in the highest, as when in the lowest position. —Fig. VII.
5th. Raised, lowered, tilted or rotated without disturbing patient.
6th. Heavy steel springs to balance the chair.
7th. Arm Rests not dependent on the back for support.—Fig. VII—always ready for use; pushed back when using stirrups—Fig. XVII—may be placed at and away from side of chair, forming a side table for Sim's position—Fig. XIII.
8th. Quickest and easiest operated and most substantially secured in positions.
9th. The leg and foot rests folded out of the operator's way at any time—Figs. XI, XV and XVII.
10th. Head Rest universal in adjustment, with a range of from 14 inches above seat to 12 inches above back of chair, furnishing a perfect support in Dorsal or Sim's position.—Figs. XIII and XV.
11th. Affording unlimited modifications of positions.
12th. Stability and firmness while being raised and rotated.
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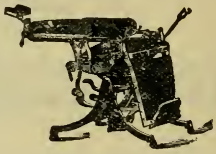

Fig. XVII—Dorsal Position.

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The success of Fellow's Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of these, finds **that no two of them are identical,** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution,** and in the medicinal effects.

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DOSE:—For an adult, one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessertspoonful; from two to seven, one teaspoonful; for infants, from five to twenty drops, according to age. Prepared at the Chemical Laboratory of

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"	Manganese,	1½ "
"	Strychnine,	1-16 "

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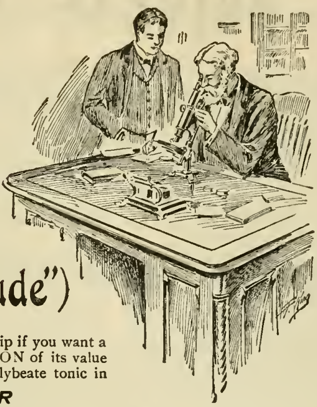

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The Charlotte Medical Journal.

Vol. XII. CHARLOTTE, N. C., FEBRUARY, 1898. No. 2.

The Physician's Future.*

By C. M. Strong, M. D., Charlotte, N. C.

This subject was suggested to me by observing how poor physicians are becoming as a class. Very few are making money, while the great body of them are barely making a living, and I thought it a good time at the commencement of a new year, which will be a hard one, especially in this beloved Southland of ours, and when the physician will especially feel it, to cast anchor and to see if we can't find out some of the causes why we are poor and possibly suggest some remedies.

The physician must keep up a certain amount of style equal to his best practice generally, for no one wants to employ a shabbily dressed and poorly liveried physician, nor do they like his family to be poorly dressed and to live in a too economical style. Then too he must pay his bills. No one thing I think hurts a physician more than this. It cramps his social standing, robs him of that independence which he should possess, and unfits him to collect his own bills.

Now to have all these conditions necessary to successfully practice our profession we must have money, and to have money we must collect better. The physician occupies an isolated position in the world. He is cut off from the busy mart of trade, and his bills are not considered in the same commercial spirit. We are responsible for this and many other ideas possessed by the laity, and the remedy for this, as far as it lies in our power, is my excuse for these disconnected lines.

The physicians can do a great deal to better their condition. Why is it that we are so poorly paid? Is it because the world is growing poorer? or is it because the public has grown callous to physicians' bills? or does it lie with the physicians themselves. I would say that all these conditions are responsible, The mass of people are growing poorer, but whether it is due to their shiftless character or to viscious legislation, or to both, it is not my province to say, nor is it in our power to remedy. But that the public have grown callous and that the physicians are responsible for this callosity and there the difficulty lies, there is no doubt to my mind; and the education of the laity to the fact that we must be paid is the remedy I would suggest.

Physicians encourage the laity to believe that their bill should not necessarily be paid by doing too much gratuitous work—by direlect and unbusiness like methods of collections, We lose many good bills, and *pari-passu*, good patients by the old saws of, oh! any time will do; I'll not push the matter; any time that suits you! with an assuring slap on the shoulder which often means farewell to both patient and bill. This gentlemen, undervalues our work, when it should always be at least at par. We should always make them feel that they owe us what we charge; that we are human and need money, and that a physician's bill above all others is always due.

Another way we encourage this is, that we think we loose patients by dunning them; we loose very many more by not doing it. You never loose a good man by dunning, provided that be the universal custom of physicians, as is the custom of all other callings.

We do too much charity work; when we do it, let it be known as charity, and let them feel that it is charity. The charity racket has impoverished many a deserving physician. Mrs. Wealthy comes to you to go and see poor Mrs. Needy on Chintz-row. You go like a prodigal returning from the Klondike, in hopes, per chance, that you will be called in to Mrs. Wealthy next time. Alas! no. Query: Why does not Mrs. W. go to her physician and have him go? Because she don't want him to practice for both classes. Can't we tell Mrs. W. we have all we can do, and can't take the case. Then we may eventually get in with Mrs. W. Value your labor and other people will value it. Under value it and it becomes a drug on the market.

How can we educate the laity in order that our exchequer may be replenished? By unity of action and purpose. No class of men so numerically weak as the physicians can afford to be divided on matters pertaining to their material welfare. The world is against us—the doctor is an unpopular man—laughs at our poverty because it makes our services cheap. Therefore we must work together. I am not speaking here of social unity, which is impossible among us almost, for we are porcupines among ourselves, at the same time a small company of porcupines, by a united charge, can do considerable damage. I mean a unity for protection. Within this Society we have a mighty power to better our condition in Charlotte. Every dollar we collect through it, is a nucleus for many more, and is the best means of educating the laity to the fact that we must be paid for our services.

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*Read before the Charlotte Medical Society, January, 1898.

The more I study our delinquent list-laws the more I like them. It reflects great credit upon its originators and if we carry out its spirit, not allowing any personalities or revengeful spirit, to enter into its execution, I think it will greatly help us. It is to my mind the most perfect solution of the vexed collecting problem yet devised. It is peculiar to our society and like *spirits* it will grow better by age. I believe if its workings were known to the world to-day, it would be universally adopted. It is a great declaration of the physicians independence. Let us hold it up as a man and we will see its benefits.

I don't think I am a pessimist, nor a calamity howler, and am not speaking as I do purely from personal experience. For I think the great body of physicians will bear me out in saying that physicians as a class are growing poorer and unless we stop this retrograde metamorphosis, we will by a Darwinian process evolve back to the hair cutter bleeder and surgeon, and instead of our neatly gotten up Dr. signs, place in front of our shops the stripped pole and cause the barber to seek other more congenial fields, where education is not necessary. Those dependent upon us—our standing in the community demands more money than the average physician is making out of his practice. We can remedy this to a great extent. We talk too much about other physicians and their bills to the laity, and we allow them to talk to us about them. We give too much gratuitous advice, do too much gratuitous work. We labor for honors and emoluments, which do not exist. We must work for a living; let us own it, let the world know it.

The physician's future without some change is not very encouraging, but with concert of action and purpose, we can brighten the out look a good deal.

The Doctor, how noble his profession, yet how hard his work. His day never closes until his work on earth is over. Through storm, cold and darkness he trudges on, longing for sympathy, which the world never gives; they only need him in sickness and pain, and as the fevér subsides their gratitude wanes and ceases when health is restored.

How soon the world drops the superannuated physician. They crown the victorious soldier, and provides for him a comfortable home when old and helpless, weeps over the bier of the statesman and erect above him the marbled shaft, takes care of the decrepit preacher, but the old doctor is forgotten, and at his grave very few tears are shed, because they all owe him and think that their bills are settled by the cold earth, as it drops around his coffin. Surely the doctor is entitled to better things in this life, let us have them now.

Will Carlton immortalizes the old country doctor in his immaculate poem, and the only scene of comfort in it to the physician is the last one, where the old doctor is sitting on his chair with his head résting on his table, near him lies his case and books and hovering around his lifeless form are the angels, pure and white, placing upon his marbled brow the laurel wreath, while from the skies is heard: Come unto me all ye that labor and are heavy laden and I will give you rest.

Epilepsy—A Clinical Lecture.

By William Broaddus Pritchard, M. D.,
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Epilepsy is peculiarly a disease which demands the study of individual cases. While it is true that the generic term is applicable to, and includes, all varieties, there are numerous sub-types which differ from each other in the symptom picture most markedly.

Epilepsy may be defined as the *habit* of having convulsions attended with unconsciousness. The convulsive spasms which occur in epilepsy do not differ per se from those which occur as unique attacks from toxic agencies, dentition or other accidental causes.

There is, perhaps, no disease in medicine which possesses such an extensive nomenclature in its wealth of technical terms discriptive of the symptomatology and etiology. These technical terms are not only valuable, but essential to the intelligent study of the subject. We have, for example, a division into two forms expressive of a difference in the degree and intensity of the seizures—major and minoi epilepsy, or as the French express it, grand and petit mal. Other synomyms are general and partial, and in a more restricted sense, frank and larvated, or masked epilepsy.

The element of periodicity in the time of occurrence of the attack, a factor of importance with regard to both treatment and prognosis, has served as the basis for a chronological division into diurnal or day, and nocturnal or night, attacks, the former being still further divisible into the matutinal or morning, and the vesperian or evening cases. Etiologically we have the divisions idiopathic, organic, toxic, syphilitic, and reflex. The term idiopathic involves the tacit admission that we are ignorant of the cause. The organic cases include all those due to trauma, to meningitis, hydrocephalus, tumors or other intra-cranial lesions which are demonstrable. So-called Jacksonian and cortical epilepsies belong to this group. Toxic epilepsies are those due to alcohol, lead carbon dioxide, malaria, absinthe, quinine or other drugs. Syphilitic epilepsies are really organic or toxic, or both, but as the affection, when caused by syphilis, presents certain clinical features which are peculiar, the recognition of this etiologic type is advisable. Reflex epilepsy comprises all cases, comparatively few in number, which are dependent upon reflex irritation from the peripheral nervous system, the removal of such reflex cause curing the disease.

Notwithstanding the elaborateness of the above divisions it has been found convenient and of advantage to construct a further division of special symptomatic and etiologic types made up of comparatively rare clinical forms of the disease. Included in this class are epilepsia porcursive, e. nutans, e. loquax, hystero epilepsy and cardiac epilepsy. The porcursive form is a variety in which the ordinary tonic and clonic spasm is replaced by a habit of running during the seizures. In nutans the motor spasm is limited to nodding movements of the head. E. loquax is characterized by an explosion affecting speech. By hystero epilepsy is meant the conjoint association in an individual of both epilepsy and hysteria. The epileptoid convulsive attacks of major hysteria, as described by Chorcot and others, should not be referred to as hystero-epilepsy, Cardiac epilepsy is a form of the disease in which the attacks at first may resemble closely either angina pectoris or simple cardiac syncope. The patient has little more than an aura of præcordial anxiety, usually at night or when lying down, with transient unconsciousness, but without motor spasm. There is, in such cases, either a brady or a tachycardia, rarely a normal pulse, and it is at first a petit mal. Gradually, as a rule, the attacks become more severe, and finally the case may assume the major or grand mal. type. This latter fact of transition in these milder forms to the severer forms of the disease is true of all cases as a possibility, and, indeed, a probability, although in occasional instances, a petit mal may remain such.

Coming now to the direct study of an individual case I wish to call attention to this history form which I use as a routine basis for case study and record. The name, age, race, sex, occupation and residence takes up the first line. The race of the patient may be of importance in diagnosis. If a woman and of the Latin race—French, Italian, Spanish (and I would add Polish Jews), it is necessary to exclude hysteria as a factor with unusual care.

The occupation is often a side light upon the etiology. Epilepsy in sailors or prostitutes suggests syphilis; liquor selling suggests alcoholism; painting and plumbing suggest lead as a cause. The family history comes next. Heredity is remarkably common as an etiologic factor. It is variously estimated as present in from 15 to 50 per cent. of all cases, Hamilton believing that it exists in one-half of all cases. It should be borne in mind, however, that he included immediate and collateral ancestral phthisis and apoplexy as evidences of heredity, which is not admitted by most clinicians. Epilepsy in a parent or grand-parent, or brother or sister, is quite frequent. I have found parental epilepsy alone in fifteen out of seventy-seven cases. Insanity, migraine, alcoholism, consanguinity of parents and major hysteria are among the more common ancestral taints observed.

Following the family history comes the previous personal history of the patient, including the time of the occurrence and symptomatic character of the first convulsive attack. The existence of previous disease such as syphitis, sunstroke, meningitis, lead colic, poisoning by charcoal fumes, delirium tremens, trauma of ths skull, etc., may point to the cause of epilepsy.

The age of the patient at the time of the occurience of the first attack should always be carefully investigated. The The majority of idiopathic cases—in fact nearly all such—begin in infancy or childhood, although in very many cases, long periods of remission or freedom from attacks occur, either spontaneously or through treatment. Quite often in such cases the earlier attacks are forgotten by the patient or friends, and the disease is supposed by them to be of much later origin. The earlier epilepsy begins in life, the greater the degree of mental and physical impairment. The prognosis as regards the epilepsy too, is relatively poorer in idiopathic cases.

The remissions referred to deserve more than a mere mention, since it is one of the most curious and at times inexplicable phenomena of the disease. They are in some instances remarkably prolonged. I have myself known of a case in which the attacks ceased for 23 years and remissions of two, four and five years are not at all uncommon.

Epilepsy developing primarily in an adult, not due to trauma or gross intracranial disease, suggests syphilis or some toxic cause.

Coming next to the study of the individual peculiarities of the attacks in the patient under investigation, I am personally in the habit of dividing my researches under three heads: The pre-, inter- and post-paroxysmal stages. I further divide the symptoms into motor, sensory, psychical and general or special.

The pre-paroxysmal stage covers the period immediately preceding the attack. Has he an aura or warning? Is the aura constant in character? An aura is present in less than half of all cases, but it may prove of much value and should be carefully investigated. It consists of some peculiar subjective sensation which serves as a warning of an impending attack and may be referred to any of the special or common senses, the viscera or certain psychical impressions. Flashes of light, tennitus, blindness, deafness, tingling in the extremities, etc., are among the more common auræ. A sensation of coldness preceding an attack is said to be, when associated with a pre-paroxysmal subnormal temperature, almost diagnostic of cardiac epilepsy. The aura often constitutes a guide to the location of the cerebral lesion, as, for example, in the case of a patient reported by Beevor and Horsley in whom an aura of a horrible taste and smell pointed to the uncinate and hypocampal gyri, found to be the seat of the causative lesion upon post mortem examination. A warning of pra-cardial anxiety suggests the cardiac variety of epilepsy. The interval between the aura and the attack varies. At times it is exceedingly short: in other cases the interval is such as to permit the patient to prepare for the attack and sometimes to prevent it.

What is the general condition of the patient preceding the attack? Is he depressed mentally? stupid? excited? maniacal? Is the convulsion preceded regularly by headache? If so, is the headache of nocturnal onset or exacerbation and associated with insomnia? If so, and the spasms occur, as a rule, at night, the patient having developed the disease in adult life, you have strong and almost conclusive evidence that the cause is syphilis.

In studying the convulsive stage, the physician, as a rule, has to depend upon the statements of others, since it is exceptional for him to see the patient in an attack. The statements of the patient should never be relied upon. The family or the friends of the patient should be instructed as to what to notice and record in an attack.

Especial importance should be attached to the location of the first convulsive movements, or as it is called the "initial motor symptom." This initial motor movement, closely akin to the aura, is even more valuable in pointing at times towards the cerebral area involved by the lesion. Spasms beginning always in the right foot, for example, point to the upper left Rolandic cortex, etc. A well defined and constant initial motor symptom is sufficient basis for operative interference, if the point indicated be accessible, even though no other evidence be present. The value of the initial motor symptom is greatest, as a rule, the earlier it appears. Epilepsy of long standing, even though dependent upon a focal lesion, tends to become general. Hence the importance of a discription of the first attacks. The question of differential diagnosis occurs most appropriately at this stage. As convulsions from uræmia, dentition, etc., do not differ materially from epilepsy except in the *habit*, it is necessary at times to consider all the collateral facts in addition to the seizure itself. If in doubt, the urine should be drawn and examined, œdema looked for, etc.

Tetanus differs from epilepsy in the two facts of retained consciousness and tonic spasm alone, clonic spasms being absent.

The detection of malignering will at times, as in the famous case of Clegg the "dummy chucker," prove quite different. It is rarely however, that a malignerer will learn his part as well as did Clegg, and few of them will have the stoicism to withstand the tests of pin prick, hot iron, ammonia vapor, etc., which are indicated in suspected cases. In simple syncope there is no convulsion.

Hysteria is really a form of malignering, and the same tests apply. As with other manifestations of hysteria, the disease simulated is nearly always overdone. A strikingly constant physiological mistake of hysteric patients is the reversal of the epileptic order of the convulsive movements, beginning with the clonic instead of the tonic movements, or mixing them up indiscriminately.

The post-paroxysmal period is quite as important for the determination of essential facts as either of the other two. After the storm the wreckage often shows quite clearly the direction and force of the cyclone. What are the residual evidences? Is there paralysis or paresis, transient or permanent, anywhere? Are there any sensory disturbances left! What is the mental condition? Every motor and sensory function should be looked into with care after a seizure. Paralysis of motion or sensation following an epileptic convulsion may point with even more positiveness than the aura or initial motor symptoms to the location of the lesion. Is the attack followed by insanity of any form? Mania is the most common type observed, and a very dangerous form of mania it often is, with a peculiar tendency to homicide and malicious destructiveness. Many curious psychical phenomena are occasionally observed in the intervals between attacks and in the post-paroxysmal period. States of somnambulism, dual consciousness, amnesia, etc., appear under the division of special symptoms, as well considered here as elsewhere. The patient should also be examined for stigmata of degeneracy. Asymmetry or abnormality of development, especially of the skull, undue elevation of the palate-roof (gothic arch), a deficient number of teeth, undue elongation or eversion of the coccyx, semetimes constituting a rudimentary tail, are among the stigmata which have been observed. Such stigmata indicate a vicious heredity often and in such patients the prognosis is relatively worse.

With regard to the treatment of epilepsy I must confess to a personal pessimism, at least with reference to the idiopathic variety. I do not mean to say that treatment is ineffectual altogether. On the contrary, it is decidedly of benefit, when persistently and intelligently carried out, in lessening the severity and number of the attacks, and in assisting in establishing more or less lengthy periods of remission. The *cure* of epilepsy of the idiopathic type, however, by medical agencies is rarely, very rarely, accomplished. Treatment varies according to the etiologic type, of course. Syphilitic epilepsy, especially if associated with other evidences of intra-cranial syphilis, as is common, should be treated by the iodide of potassium in full doses, though, in my experience, syphilitic epileptics do not tolerate very large doses (six or eight hundred grains daily) of the iodide so well as those in whom epilepsy is not present.

In toxic epilepsies, the causative agent should be considered in the treatment, though such treatment, to be effective, must be prompt. If the habit of having convulsions be of long standing, treatment directed to the primary cause has but little effect. In the organic cases operative interference is the only hope or certainly, at least, the rational procedure, if the lesion can be located and is operable in character and accessibility. Here again the chances of success are in a direct ratio to the promptness with which the cause is recognized and operation adopted. Removal of an organic cause may and often will fail to cure if of long standing.

In every patient sources of reflex irritation should be carefully investigated. While rarely, if ever, a sole cause, reflex irritation is often a source of great aggravation. Phimosis, cervical stenosis, carious teeth, aural disease, nerve cicatrices, etc., are among the more familiar conditions which may and do aggravate an epilepsy. They should be corrected in every instance, but the physician who promises more than benefit from such procedure is at least sadly deficient in experience.

Eye strain and ovarian irritation have both been described by more or less enthusiastic specialists as fruitful causes of many neuroses, including epilepsy. I have never yet seen a case of epilepsy cured or even benefitted permanently, by operations upon the eye muscles or removal of the ovaries, and I have seen scores of patients upon whom such operations had been done. Here again I would advise removal of such sources of aggravation of the general nervous irritability of the individual, but a promise of cure should never be made.

The ideal treatment of idiopathic epilepsy is, in my opinion, only attainable through institution environment, organized as at Bielefeld on the colony plan, or as it is here in New York State. Regulation of the habits, diet, clothing, exercise, sleep, and the employment of various adjuncts in treatment such as hydrotherapy, gymnastics, etc., can be accomplished systematically only in an institution established and conducted for such a purpose. Where this is impossible the following plan is advisable: Epileptics should be given some employment always, preferably physical and out of doors. As soon as possible the diet should be regulated to two meals a day, Plain wholesome food, simply and thoroughly cooked, should be given liberally, but not in excess. No special, constant diet table is necessary or advisable, except in individual cases, when some special indication exists. The two meals should be at 10 A. M. and at 5 P. M. The patient should be required to drink water freely and at regular intervals between meals. As much as three or fonr pints should be taken daily. The living rooms should be light and never over-heated, or contaminated by impure air.

Tonic baths at proper intervals, keeping the skin active and assisting in nutrition, are valuable, though no special system of hydrotherapy will cure epilepsy.

As regards the drug treatment, we are still dependent upon the bromides. Animal extracts, rabies antitoxin and various other sensational specifics have been vaunted in recent years, but have not stood the tests of trial fairly made. The coal tar derivatives, antipyrine, phenacetine, lactophenin, etc., have also had their day, although their use is not altogether without benefit temporarily under certain circumstances. Amylene hydrate, ethylene bromide, sulfonal curare, and solanum cariolensis, are a few among the hundreds of new remedies recommended which have proven either useless or as with amyline hydrate and curare, worse than useless. Borax, preferably in the form of the biborate of soda, is an exception in that it really does seem to possess a positive value, especially in nocturnal epilepsy. The dose is from 15 to 60 grains, twice or three times daily, though very much larger doses are borne well. In giving the bromides (the potassium salt is most effective) either one of several plans may be followed.

In an ordinary case with attack of moderate severity, occurring two or three times a month, or less often. the patient should begin with 20 grain doses twice daily. If the attacks occur with any constancy at more or less regular intervals, as at the menstrual epoch in women, the dose should be increased for a few days preceding such period. Gower's plan of treatment is quite effective in some cases, though bordering on the heroic. He gives one full dose of potassium bromide in the morning after breakfast in half a pint of water, beginning with two drachms every second morning, increased to three every third morning, and four drachms or more (an ounce sometimes) every fifth day. The dose and order of interval are then reversed, and the treatment is continued in this way for six weeks. Small doses are then given for a year or more.

Potassium bromide seems at times to benefit for a time and then apparently it wears out. Combinations of the bromides, sodium, ammonium, strontium, or one of these other salts alone, may be substituted with advantage. Sometimes the addition of one of the motor depressants, as hyoscyamus, belladonna, or conium, is quite effective.

Three remedies are deserving of special mention in connection with special forms of epilepsy. for the relief of which they seem especially efficacious: Monobrated camphor in certain cases of petit mal, duboisin in hystero-epilepsy, and the hydrobromate of coniium (gr. 1-50) in the status epilepticus, where several attacks follow each other in immediate or rapid succession. It is quite a well known, but none the less unique, fact that almost any new remedy tried in an old epilepsy will temporarily benefit the case.

It should not be forgotten in connection with the treatment of epilepsy that the improvement of the general state is sometimes imperatively indicated. Iron in some digestible form, cod liver oil, and the rest treatment as advocated by Weir Mitchell, are at times of both general and specific benefit.

Six patients, representing various types of epilepsy were exhibited to the class at the close of the lecture and served to demonstrate the subject.

105 W. 73d St., New York City.

Puerperal Eclampsia.

By C. A. Murray, M. D., Van Etten, N. Y.

To the true student of nature. this disease affords a large field for profitable study. It is interesting to observe how much of the space in the popular medical journals of the day is devoted to the consideration of this disease—and justly so; the importance of the subject demands it. Notwithstanding, all this, the true nature and cause of the disease seems almost as obscure as ever. To clearly understand this disease, it seems necessary to consider carefully the circumstances and the surroundings under which it occurs. As we all know, as soon as pregnancy occurs, a new action is set up in the system, designed by Nature to support not only the system of the mother, but also the new being, and as soon as the first effect of the new condition is over, viz.: the nausea and sickness which occurs, Blind Nature bestows upon her an enormous appetite. She must take nourishment, not only to support herself, but also that second principle of life within. To satisfy this appetite, many thoughtlessly gorge themselves with large quantities of rich animal food, which to them seems necessary, and thus their systems become plethoric, and surcharged with rich blood, which causes the brain to be congested, and an overfulness of the system generally. And if at all nervous, the brain is overwhelmed, and eclampsia results. I think most cases of this disease may be traced to this cause, and this cause also suggests the proper treatment, which is generally Phlebotomy, reducing the quantity of blood circulating in the system. and thus relieving the congestion of the brain. I believe the propriety of this treatment is fully borne out by facts. To prove this, I submit a few cases.

Case I.—Mrs. K., living near Spencer Village, was taken in convulsions after confinement. The second day the attending physician called counsel with no beneficial result. The third day I was called alone to see the patient and found a case of profound coma, occasionally interrupted by a violent convulsion, accompanied by frothing at the mouth and opisthotonos. I found the pulse hard and full, which is generally characteristic of this disease. My resolve was instantly taken. I fortified myself by showing the utter hopelessness of the case in its present condition and proceeded to bleed in a recumbent posture, to actual syncope.

Fearing the bleeding had been excessive, I immediately gave her the benefit of position by allowing her head to hang off the bed, supported by an assistant, so that the blood might gravitate to the brain and thus support the heart by nervous influence, and not until a full half hour had elapsed was the volume of pulse sufficiently restored to allow the replacing of the head upon the pillow. In about an hour more she was seized with another convulsion. Thoroughly discouraged, I thought there was no hope and left the patient, promising to call again next morning. I failed to appreciate the fact that her brain had been under this terrible blood pressure two whole days and could not be expected to be immediately relieved. The next morning I was surprised to find the coma entirely gone, patient conscious, knew me, could talk, ultimately made a good recovery and I believe is alive today, though this happened about thirty years ago. I thought at the time the bleeding had been slightly excessive. I was, however, afterwards convinced that less bleeding would not have saved the patient. We must have courage to take sufficient blood to relieve the brain.

Case II.—About ten years ago I was called early one morning to see Mrs. K., living about seven miles from Van Ettenville, and found her in convulsions at about seventh month of utero gestation, in her first pregnancy. Dr. Dumond, of West Danby, was called as counsel. I suggested bleeding, according to my custom, to which he gladly gave assent, considering her case almost hopeless. She was accordingly bled about eighteen ounces, a large bleeding for a slender woman of eighteen years. This bleeding stopped the convulsions and relaxed the os uteri to such an extent that we succeeded in about eight hours in delivering her a seven months' fetus, which lived about five hours. A remarkable symptom in this case was the total blindness which existed—a symptom which I believe commonly exists in eclampsia, but is frequently overlooked because the patient in her unconscious condition is unable to tell us she cannot see. We were thoroughly discouraged by this symptom, but kept her quiet and found next morning that her brain had cleared, sight was restored and that she was conscious. She made a good recovery. This case was considered the more remarkable from the fact that three other cases of this disease had happened in that vicinity which failed to be bled and all three died.

Case III.—About five years ago I was called in the night to see Mrs. W., living about four miles from Van Ettenville, but on account of the darkness of the night and deep snow, I was unable to see her until daylight and then only by a circuitous route. I found her in the seventh month of pregnancy; primapara; had been in convulsions about eight hours. I immediately bled her largely, after which the convulsions were milder. I called Dr. Gee in counsel, who, like myself, could see no hope. I, however, remained with her and during the next night succeeded in delivering her of a dead fetus, but on account of the extreme prostration, dared make no attempt to accomplish the third stage of labor, which delayed for some hours. Unconsciousness continued. Yet this lady in her extremity insisted on getting well and did so. She made a good recovery and two years later was delivered of a healthy boy.

It may be interesting to note that this woman had another attack of eclampsia at this, her second confinement. After the labor was fully accomplished she had one terrible convulsion. But, profiting by my former experience with her, I bled her so quickly and freely that she didn't have another, but made a good recovery. A remarkable feature in this case was loss of voice. It was three days before she uttered the first articulate sound.

You will, therefore, perceive, while most severe cases of puerpeal eclampsia die, I am accustomed to seeing them get well and I attribute the success I have had in the treatment of these cases to free bleeding. I believe there is no other rational treatment. Some physicians place great reliance upon hypodermic injections of veratrum viride, and justly so. Yet I believe this remedy does not clear the brain equal to bleeding and in large doses is equally debilitating and dangerous. Many practitioners claim its action is very uncertain and unreliable. Not that I would bleed in all cases of puerperal eclampsia. Far from it; I would never think of bleeding in such cases unless the pulse, that great index of the heart's action, warranted it.

This leads me to speak of the pulse. To be a good judge of the pulse requires great tact, experience and discrimination. Many kinds of pulse are described by authors for the guidance of students; more perhaps, than are practically necessary. From this mass I have culled a few which I think should be critically studied by every student who aspires to be even a fair judge of pulse, as follows: frequent or infrequent, quick or slow, strong or weak, full or small, hard or soft, regular or irregular, oppressed or free. The mere frequency of the pulse can be determined by a watch. All else. as you perceive, is the result of feeling and sensation. So, while seeing is believing, feeling is the naked truth. One can soon learn to discriminate between a quick pulse and a frequent pulse, and so of the others. The oppressed pulse is perhaps the most peculiar. This pulse at first seems weak and small, but becomes fuller and stronger by depletion. Its indications of disease, carefully studied, are very instructive.

To acquire this skill in judging of pulse we should educate ourselves, especially our fingers, cultivate that learned touch, that tactus eruditus, so that we may know to a certainty whether a given pulse will bear bleeding. This skill was possessed by our fathers in exquisite perfection, when bleeding was more in vogue than at present, and should bleeding continue to fall into disuse I think there is reason to fear we shall not qualify ourselves as thoroughly upon this point as thev did.

I will here state; those cases of eclampsia which do not exhibit this characteristic pulse, and therefore do not require bleeding are very amenable to other treatment and are easily cured; in fact, will generally get well of themselves if properly "let alone." Therefore, without philosophizing upon the chemical constituents of the blood, its uremic conditions, or pathological changes, I think the practical cause of eclampsia is substantially as above shown. But, "an ounce of prevention is worth a pound of cure." Thus, if the women in this condition would restrict their diet almost entirely to vegetables and fruit, especially lemons, this plethoric condition would be avoided. The circulation would be free, the brain clear, and no eclampsia would occur. The natural emunctories of the system would be fully adequate to eliminate all seeds of disease and all uremic conditions.

Not only is this regimen best for the health of the mother, but it also develops the intellectual and moral faculties of the child. Its intellectuality is thereby assured. We all know that a diet of rich animal food stimulates the lowest and basest passions of the mind, the animal nature. It also develops the same faculties in the growing child. Although this regimen, which I advise, may require some self-denial, the result justifies the means. I believe it is the one adopted by all true women who comprehend these important principles, who know why they are on earth, who enjoy this interesting situation, who are loyal to their husbands, and who love their babes before they are born.

This period, therefore, should be made the happiest in woman's life. All cares, troubles, trials, and tribulations should be studiously kept in the background; she should have the most cheerful company; should listen to the most charming eloquence, and the finest music; should cull the choicest flowers, and breathe an atmosphere of perpetual sunshine; should have the most cheerful exercise, singing and dancing should be freely indulged in. In fact, the more cheerful and intellectual the occupation of the mother during this period, the more highly endowed the offspring.

We see, therefore, the education, or rather the intellectual development of the child, begins long before birth. I deem this subject of vital importance to every lover of the rising generation; also, to every parent who desires offspring highly endowed.

A Peculiar Skin Eruption.

By T. Edwards Converse, M. D.. Louisville, Ky., Clinical Lecturer on Ophthalmology, Otology and Medical Jurisprudence, Hospital College of Medicine, etc.

Skin eruptions manifest themselves in a great many different ways and under peculiar circumstances and some of them are very interesting. The treatment of skin diseases is not the most satisfactory for good results.

In pustular eruptions of the skin it has been my good fortune to be able to study a great many cases, and in the clinic with which I am connected we see a great many of the eczemas and other eruptions of the face, scalp and neck and the opportunity of studying them and trying different preparations in the treatment, is one of the special advantages of free dispensary work. I wish to report one very interesting case who presented herself first at the free clinic, and give a few notes on some of the treatment as carried out. There was no diagnosis made in this trouble and it was treated purely from the symptoms as seen, and nothing else. There were numerous peculiar phenomena, which will be noted and commented on in the description of the case.

The patient was a woman about twenty-five years old, married for two years, no children, height five feet four inches, weight, about one hundred and thirty pounds, in robust health and all the functions good. Her husband was a foreman in a cotton mill, and they lived in their own house in a right good part of the town. Her family history was good and none of her house or among her friends had any marked skin disease that she knew about. She presented herself at the clinic for the purpose of getting something done for the "little white blisters" that were all the time forming on her face and neck. She said she had been bothered with these blisters for several months and she had tried all the home remedies she could think of, and had been to two skin specialists but she had not gotten any better. I saw that she was rather intelligent and was able to pay a little for services, so I had her come to my office for treatment, which she did, coming the next morning. On examining the patient I found the skin of the face and neck very smoth and glistening and slightly red as if she had faced an open fire for some time, and the face was reddened without actually burning. On feeling the skin, in places it felt as if it was thick and an old inflammation, almost well, had been there, and in other places the skin felt as if it had been dried and wrinkled. In about a dozen places on her face and neck, and even in her hair, there were little places about the size of a silver dime, some of which were a little raised and slightly redder than the rest of the skin, and others looked as if there was a little collection of clear serum under the epidermis, others had a yellowish appearance as if the serum was mixed with pus and others evidently were nothing but pus. There were no indications of active inflammation. These places gave no pain nor did they give any sensation until they were almost full of fluid when she said that the skin felt tight. She said that these places filled, burst and discharged sometimes clear fluid and other times bright yellow matter which always stained her face and clothing. On further examinations, on her breast and back were large numbers of these blisters and some of them on the breast where they were not rubbed were of the size of a silver dollar or even larger.

All the places which had fluid in them were opened and emptied and the places thoroughly washed with a bichloride solution. In all the blisters the fluid was between the epidermis and the true skin, and none of it was below the skin proper, and all had the general appearance as if a fly blister had been applied. After these places were washed out they were anointed with carbolated petrolatum and she was told to come back in two days. On her return there was a new crop of them and these were opened, and the same process gone through, and she was told to come back.

On her third visit there were new blisters and some of them were on the site of those opened the first visit. The antiseptic treatment was kept up for about four weeks without any improvement and I determined to visit the house for the purpose of seeing if there was anything about the premises that would be a cause for the condition. On visiting the house I found a very clean house, unusually so, and nothing I could discover about the house that would give me an inkling as to the cause. On a microscopical examination of the fluid it was found to be full of leucocytes and the staphylococcus aureus and pus cells. My next move was to give some very strict orders in reference to personal cleanliness. As she was very anxious to get rid of the trouble these were carried out. She was to take a bath in borax and water just before retiring and considerable friction was to be used in the bathing, and then she was to retire having perfectly clean sheets on the bed. and in the morning the clothing was to be fresh and clean. This was carried on for some time and was productive of some improvement. Next I prescribed salicylic acid and petrolatum mixed, with the view of getting rid of the entire epidermis, and this was applied to different parts of the body after bathing at night and in a week's time she had a new skin, and the blisters disappeared for about three months when they returned. Several of the antiseptics and germicides were used in the form of solutions and salves, and iodoform in the form of a salve gave the best results but the odor was so objectionable that something else had to be substituted. I again took off the epidermis and repeated the process until I got rid of the trouble except on the face and neck.

The infection could not be traced to the clothing as it was clean and the same under clothing was not worn two days in succession without washing. The salicylic acid treatment was carried on until the body was free of the trouble, and the face and neck were still as full of them as ever. For the face I tried carbolic acid, calomel, tar ointment and several others without any improvement. One day I received about twenty grains of thiol and had it made up with an ounce of petrolatum, and this was applied to each place after it was emptied, and it acted as a charm and the places healed rapidly and permanently. About six months afterward a few appeared on the face and they were cut short by the application of a little of the thiol, nor have they reappeared in a year's time.

The frequent examination from some of the blisters showed only the staphylococcus, but once or twice there were found a few new coccus but was unable to make a culture from them. Some of the peculiarities of the trouble was its long standing without affecting the health of the patient. Another was that after one of the blisters was emptied and the loose skin was removed, in a very short time another blister would form at the same place. Another was that the ordinary antiseptic treatment had very little effect upon the disease. The only thing that did good was to get rid of the epidermis and keep doing it until the surface was entirely clean and then the application of thiol. I was unable to find in any of the literature at hand anything which described this disease or anything like it, and it was entirely new to me. I have seen two of these cases but in the second case the eruption was confined entirely to the lower extremities and it responded to the bathing with borate of sodium alone.

405 W. Chestnut St.

How Can We Prevent the Slaughter of the Innocents?

By E. Stuver, M. Sc. M. D., Ph.D., Member Colorado State Medical Society (Vice-Pres. 1894): Member American Medical Association; Member International Medical Congress (Berlin), &c., of Rawlins, Wyoming.

One of the distinguishing characteristics of a highly advanced civilization is the conservation or protection of human life, and civilized peoples have been taught to regard it as one of the most sacred things in the world, and to punish its destroyers by the severest penalties. On the contrary, among savage and barbarous peoples life is, and always has been, held in much lower estimation, and is sacrificed for very trivial offenses.

During the last few years every one with humane instincts, has been horrified by the cold blooded murder of the Christians in Armenia, by the merciless Turks, and filled with loathing and detestation for the inhuman and bloodthirsty Weyler, on account of the atrocities inflicted upon the Cuban patriots.

While these bloody deeds, which are a reproach to our civilization, have stirred our modern society to its very foundations, have aroused the indignation of the whole civilized world and created a strong demand for swift retribution, yet at the same time a wanton, unnatural destruction of human life, vastly greater than that caused by the Turks and Spaniards, has been going on right in our midst, and has been viewed with almost absolute indifference, created but little comment and aroused but slight sympathy, indeed, has been passed over with scarcely any notice at all. I do not believe this picture is overdrawn, nor, as every physician knows, is the offense confined to the so-called criminal classes, but has invaded all ranks and classes of society, from the millionaire's palace to the humblest hovel in the land, yea, is committed in the very shadow of our churches, and is carrying physical death and moral blight everywhere.

So general has this crime become that where the Turk and the Spaniard have slain thousands, the victims of the abortionist, throughout the civilized world, could be numbered by tens of thousands.

But it may be asked what is the cause of this state of affairs; why this misapprehension or disregard of correct ethical and Christian principles; why this great moral obliquity on so important a question?

I believe this to be due to a number of causes, the principal of which are:

1st. Hereditary vestiges of pre-existing savage or barbarous instincts and practices.

2d. Ignorance of the biologic fact that from the moment of conception, the developing embryo contains all the *potential* powers of the fully developed individual.

3d. Apathy or a spirit of *laissez faire* on the part of the great majority of people.

4th. Incompetence on the part of legislators to comprehend the true significance of the subject and the consequent futility of the laws enacted to suppress the crime.

5th. The inability or disinclination of judges to appreciate the rights of the embryo, as an individual entity, during the early stages of its development.

6th. The ignorance or disregard of the subject on the part of *teachers, ministers, druggists and physicians*, and the frequent complicity of the two latter classes in the perpetration of the crime.

7th. Ignorance of the physical dangers and moral degradation that inevitably follow this offense.

Could we but lift the veil that conceals the many premature graves, the shattered lives and desolate or disrupted homes—homes from which the bright smiles and ardent hopes of young lives have disappeared forever. and in their stead reign desolation, sorrow and vain regrets—a desolation that all the wealth and honor of the world can never satisfy—a sorrow that can never be appeased, and regrets that no amount of sophistry or excuses can remove or mitigate; could these things be presented in the noonday glare of all their physical and moral hideousness, how soon would the aroused conscience of a moral and Christian people, drive to their proper place behind the prison bars—the vile hags that suggest this crime to young women—teach them how to commit it or do the foul work themselves; or those still worse vampires who wear the livery of an honorable profession to cover up their infamous practices, not to say anything of the base, conscienceless libertines who assist in the accomplishment of this nefarious work, and at the same time retain their so-called exalted social positions.

But the question naturally arises, how can the evil be mitigated or prevented?

In the first place every true physician should be aroused to a proper appreciation of the moral and professional importance of this subject, and he in turn should strongly impress upon every one who applies to him for this kind of service, that from a biologic standpoint, the operation unless absolutely necessary to save the mother's life, is a plain, simple murder and cannot be explained away or extenuated in any manner whatsoever. At the same time the terrible physical evils and sufferings that may and frequently do follow its performance should be strongly impressed upon their minds and the moral infamy of the offense seared into their very souls, if such a thing be possible.

In the comparatively very rare instances in which it is absolutely necessary to terminate the pregnancy in order to save the mother's life, the case should be in the hands of an honorable, competent physician who should never resort to this extreme measure without calling in consultation one or more of his professional brethren and carefully considering the case in all its bearings with them.

Then, too, every medical society in the land should set the seal of its condemnation on this offense, and ignominiously expel from its ranks any and every one guilty of its perpetration. Physicians should be given to understand that they cannot produce abortions for prostitutes or those who merely for the sake of convenience or social indulgence would violate nature's most sacred laws, and at the same time retain their positions as honorable professional men and women.

Nor is it sufficient that the physician merely occupy the negative position of refusing to do that kind of work, but he should embrace every fitting opportunity to impress its importance upon others. Legislators and judges should be taught the biologic facts on which life rests, so that laws can be framed and decisions rendered in accordance with these facts.

Ministers should likewise be instructed and aroused to appreciate the enormity of the crime and its devastating consequences.

Their calling affords them many opportunities to bring out vividly the physical dangers and moral turpitude of the offense. They are in a position to do much good and their sympathy and co-operation should be secured in overcoming the evil.

The teachers in our higher institutions of learning, can also by instilling correct principles into their pupils do much towards preventing the practice.

Then, too, laws, with severe penalties attached, should be enacted prohibiting druggists from selling abortifacient remepies, except on the prescriptions of properly licensed physicians. This kind of a measure if ridgidly and impartially enforced, would I believe prevent a great many of these crimes and have a very salutary effect in educating the people to appreciate the enormity of this offense.

Weaning the Baby.

By F. R. Millard, M. D., San Diego, Cal.

The custom of consulting the position of the heavenly bodies to find a propitious time for weaning the baby is very old, perhaps as old as dividing the zodiac into signs. We know that it was practiced in Babylonia when that country was dominated by the Chaldees. We know they allotted a part of the body to each sign, but whether that allotment was what we are accustomed to see in what a would-be humorist described as "that shameless man who stands in front of the almanac, exposing all his innards to the public gaze" we do not know. Perhaps it was, for unwritten custom is less changeable than written history. It is a curious fact that though a part, if not all, of Chaldean astrology was carried into Spain more than twenty-four centuries ago, it has never shown more than a negative vitality in the Iberian peninsula. Introduced into Rome at a later date and by another route, it there found a fruitful soil, and at one period threatened to overtop the state religion. Later it was banned by bishops and almost exterminated, but after the reformation this one poor bantling of weaning the baby when the sign was in the knees was harbored in protestant countries, and now bids fair to re-conquer the catholic countries on the Mediterranean. Aged Italians and Frenchmen have told me that it is more generally followed than when they were young, and I am sure that a greater proportion of the people in this country believe in and follow it now, than was the case fifty years ago. The incentive to give this belief any attention except to ridicule it, was a remark made by my graybearded friend of forty years ago, Dr. —— which caused me to exclaim, surely Doctor you do not hold that senseless superstition? He replied: If it is a superstition it is a harmless one. But, Dr., can you give me a single reason why it is better to wean a baby when the sign is in the knees? Perhaps not, but I can give you a chapter from my experience. My wife and I have weaned eight babies. Neither of us can tell where the sign was when five of them were weaned. We did not expect any unusual trouble in weaning Willy, for he had been a good baby, but were disappointed. He proved a persistent rebel and from pure obstinacy made himself so ill, that for weeks he seemed more likely to die than to live, and it was nearly a year before he finally recovered. When Frank came old enough to wean we dreaded the job, for he had given more trouble than any two of the older ones, and as my wife was not strong it was put off, hoping she would be better able to stand the ordeal. One day Mrs. K. called and expressed surprise that Frank was not weaned and when told the reason said, I knew when you weaned Willy, when the sign was in the head, you would have trouble and I only wonder he did not die. Every old dutch woman knows the time to wean babies is when the sign is in the knees. It is there today, and if you will begin now I will warrant in a week he will be practically weaned. My wife consented and the weaning was begun. I was very busy and saw little of the children, but noticed that Frank was more fretful than usual and suggested that probably her milk caused it and he had better be weaned. She was sure her milk did not disagree with him and for a day or two I said no more. Then, as he was still peevish I more strongly urged the idea of weaning him, and my wife confessed that it was begun and so far she was satisfied with its progress, and in fact he weaned in less time and with less trouble than any of the children had. When she proposed to wean Lizzy under the sign I did not object, and it was done easier than with Frank.

Now when asked about weaning babies, I reply, that if it makes no difference where the sign is when a baby is weaned there can be no objection to weaning them when the sign is in the knees. I then determined to make some comparative observations on babies. A little reflection convinced me that the environment was so widely different in different families that, one of two courses must be followed: Either to restrict my observations to successive children in the same families, or to observe a large number of children during a long time. I chose the latter, and for five years observed as many babies as possible, including many not in my clientele, recording the age and weight when weaning was commenced, the time occupied and the weight when it was completed. The vast majority of the earth's inhabitants have been, are now and always will be, common people. So only the common baby, weaned in the common manner, was counted in the final average. The very wealthy and those in abject poverty being excluded. To my surprise the sign babies had the best of it on all points. The time was less, and there was a smaller proportion who lost weight, and a much larger proportion who gained in weight. The entire record was lost more than thirty years ago and I will not try to reproduce the figures from memory. I could not then help suspecting that the firm conviction in the mind of the mother, that the job would be short and easy, helped to make it so. I much regretted that the age and temperament of the parents was not also recorded, so that comparison on that basis could be made.

I proposed during the same period to compare in like manner the weaning of young calves and colts, which is generally just as arbitrary as with babies. My meager finances compelled me to play the role of the fifth calf at sucking time. My farmer friends were classed as believers and unbelievers. The difficulties were more and greater than with babies. While it was always posssible to know when the believers commenced to wean their stock, it was seldom they could tell the age. And unless the unbeliever was caught in the act he could seldom do more than make a guess at answering, either as to date or age. The best I could do was to see which class brought their young stock to the beginning of winter in the best condition. Each year the calves and colts of the believers averaged the best. Still this may have been because they averaged older when weaned; or they may have had better care. I had but one chance to watch a satisfactory experiment, and this was too satisfactory, because I could not get it repeated.

My friend D. was a college graduate and a reliable square man. He had nine colts to wean and I proposed that he wean part of them when the sign was in the knees, and part at another time, and see which came through best. He refused, saying he had four boys from ten to eighteen years old and was trying to bring them up to avoid any belief in signs and omens. A few weeks later I watched just this experiment on his farm: He had taken up four of the older ones for weaning and as it happened, on the first day of Aries. Later he called and said he was suddenly compelled to leave home for a week, and as his baby was not very well he wished me to see her and give her and the rest of them any attention needed while he was away. After prescribing for the baby I proposed to Ed., his oldest son, to look through the stables, and asked how the colts were weaning. Not worth a cent, they have been up three weeks and don't seem much nearer being weaned than when they had been up three days. As it was the first of Capricorn I proposed that he take up the other colts, give all the like care and see which came out the best. He said, father does not believe in signs and might find fault. I know he does not, but when he asked me to see Sarah he said give her and the rest of them any needed attention. Now I assume that "the rest of them" includes the colts, and if he finds any fault tell him the fault is mine and Iwill bear all the blame. The colts were taken up and no fault was found with the boys for having done it. This lot weaned in less time, and Mr. D. estimated that their loss in weight was about half as much as the first lot lost. One of the first lot persisted in sucking its mother at every opportunity until she dropped another foal, after which weaning was completed. I saw one of the first lot sucking its mother the winter after it was two years old, while two of her younger colts by the same sire, which had been weaned when the sign was in the knees were in the yard and paid no more attention to their mother than to any horse in the band. After this when D. had colts to wean he consulted the almanac as religiously as any dutchman in the neighborhood.

The China people here tell me that in their country, the doctor or the astrologer fixes the time for weaning the baby. All they can tell is that the baby's age must be given and that the wise man fixes it at the time when the moon and certain stars are in conjunction. Perhaps it is mainly because of my venerable appearance that they all call on me to fix the day. I very much wished to know if the heathen woman's faith would help her as much in weaning her baby as the Caucasian woman's faith in the knee sign helped in weaning her's. Few of them have children and when they do one or two is the rule and comparison is impossible. However the wife of a Chinese merchant helped me some by presenting her husband with eight children in thirteen years. It is a bright family and for common sense and good judgment the woman is her husband's equal and that he is no fool is proven by the tact that in the twenty years he has been in business here he has acquired considerable wealth and established a reputation of which no merchant need be ashamed. I have been asked to fix the time for weaning seven of his children, the eighth is only a few weeks old. The first and third were weaned under Capricorn, the second under Gemini, and the fourth under Libra. When the fifth was old enough he came in with a more anxious face than I had ever seen on him before and said:

"Docta, I alla time your veya good fren, an I hope you will be my veya good fren. I bring many my people to you when they sick. I say I bring you good docta, he my fren. Now please be my good fren." I replied that I was his friend and was sorry his people were not satisfied when I had done the best I could for them. He said "alla my people know you good fren my people, but two times you not so good fren me." When was I not your friend? "I alla time ask you find good time for wean my baby; two times you find veya good time, two times not so good. I think you not veya careful." What times were not so good? He named the second and fourth children. "Now I mus wean my baby, she not strong, and if you not find veya good time for wean my baby she die," and the heathen's eyes filled with tears at the thought of losing his baby, "now please be veya careful and find good time."

Writing on a card the date when the sign would enter the knees, I told him to begin on that day and let me know if it was a good time or not. Not long afterward he came in and to say his face was wreathed in smiles would not be true. It was all smiles. Giving my hand a vigorous shake he said, "you my veya good fren, you find veya good time for wean my baby; just now her mama offer her titty, she no have it; she push it away and say ca–ah! ca–ah! Ho! Ho! my baby wean," and he hurried off to buy a fat duck with which to celebrate the weaning of the baby, and I concluded that my old friend Dr. —— was right when he said, "if it is a superstition it is a harmless one."

Clinico-Didactic Lectures upon Locomotor Ataxia.

By Curran Pope, M. D.,

Professor of Diseases of the Mind and Nervous System, and Electro-Therapeutics in the Louisville Medical College; Consulting Neurologist to the Louisville Medical College Hospital: Consulting Neurologist to the Louisville City Hospital; Professor of Hygiene in the Kentucky Military Institute, formerly Resident Physician to the Anchorage Insane Asylum:—Member of the American Medical, Mississippi Valley Medical, American Electro-Therapeutic, Central and Northeastern Kentucky Medical Associations: Kentucky State Medical and Mitchell District Societies: Fellow of the Louisville Academy of Medicine, and Superintendent of the Curran Pope Sanatorium.

L. M., aged 53, born in America, colored, by occupation a laborer, married, but has no children. He has been sick four years. He suffered at the inception of his disease with shooting pains in the limbs, trouble in walking, especially at night, and considerable pain in passing his water. He can give us no history concerning his family, and we are, therefore, compelled to pass it by. He has been a comparatively healthy man. His pulse is 120, weak, temperature normal, respiration also normal.

Thirty-one years ago he had specific infection. He complains of headache in the left occipital and parietal regions, the headache or pains being of a shooting, transitory nature. He says that his sleep is very bad and that he is kept awake by the pains at night. He has jumping and jerking of the legs frequently, especially in bed. He is very nervous and restless, tells us that he always has a feeling as if he was tired; is very much depressed and worries about his trouble. His general strength is good, but he has great difficulty in navigating; he can hardly walk at night at all, and during the day he usually uses a cane.

He says his appetite is good. his digestion regular, he suffers no trouble in that direction whatever, and that he has never had any serious attack of pain or vomiting. His vision is very fair, he has never seen double nor had any paralysis of the eye muscles.

This man gives a very clear history of locomotor ataxia. We will now verify the diagnosis. In the first place examining his eyes and his eyelids we find that it is as he has stated; he is free from paralysis or any ptosis. Carefully testing the pupillary reflex, we find that upon approaching a strong light to the pupil it is rigid and does not react to light. And yet when he watches an object slowly approaching the face, we notice that the pupil gradually contracts. This condition of rigidity of the pupil and inability to respond to light reflex and yet an ability to accommodate itself is known as the Argyll-Robertson pupil.

Testing the reflexes we find that they are lost on both sides, and you will notice that in placing one limb over the other, instead of the regular, co-ordinated movement that can be made in health, that there is an unsteadiness of movement—an inco-ordination. Having him stand now with the feet close together we ask him to close his eyes and find that he is so unsteady that the slightest closing of the eyelids produces a tendency to fall, in fact he becomes unsteady npon decreasing the base of support. This is known as ataxia—static ataxia, or that ataxia which takes place on standing. Watching him walk we notice that he is also ataxic on moving, therefore he suffers from both varieties—both static and motor ataxia.

He has some difficulty in passing his water, it being slow to start, and dribbles from him.

We have to deal in this case with the following state of affairs: First, shooting or lancinating pains in the lower extremities; second, ataxia, static and motor; third, a weakness of the bladder; fourth, loss of sensation. He tells us that his limbs have gone to sleep. He has lost the sexual function. He has loss of feeling in the legs. So then we have the pain, loss of the reflexes, bladder and sexual trouble, anæsthesia, static and motor ataxia; that, with the Argyll-Robertson pupil, goes to make up what is known as the symptom-complex of locomotor ataxia.

What are the *causes* of locomotor ataxia? One of the most prominent causes and probably the most discussed of them all is the question of specific infection. It is claimed by Gowers that only ten per cent. of the cases can absolutely exclude specific infection, but I think among American neurologists the estimate is a little more accurate and approaches about sixty-five per cent.

But that specific infection certainly has a very close relation to locomotor ataxia can not be denied; but understand me clearly and thoroughly in the etiology of this disease that locomotor ataxia is not a specific or syphilitic trouble. When the syphilitic poison passes over the system, it probably, through some toxine then secreted, lowers, in certain cases, the vitality of the neuraxones in the spinal cord and in the peripheral sensory nervous system, and that there is then laid the foundation for the future development of this disease. This disease, as it were, is the wreckage that follows the wake of the specific cyclone that has passed through the system.

There are certain other causes that are conducive to locomotor ataxia. One is travelling in railroad carriages. It seems that the vibration of the car has the effect of developing this disease.

Exposure to cold and dampness, especially after prolonged exertion, is thought to be a very powerful factor in the production of this disease.

It is especially prone to occur among that class of men known as commercial travellers, and one of the reasons in my opinion is because of the very active life that they lead. Taken as a class a great many of them suffer from specific disease, they are more or less on a nervous strain all the time; they are subject to considerable physical exertion and mental worry, exposed to the vicissitudes of climate, the change of hotel, change of bed, bed room and bed linen so constantly as to place them in a favorable condition for the acquirement of disease.

What is the symptomatology of this affection? First, the *pains*. The pains of locomotor ataxia are the most prominent symptom to the patient. They are of a lancinating, boring, aching, suffocating character. They come quickly and leave quickly. They are more often found in the lower limbs than in any other portion of the body, and in my experience they are very much more frequent at night, though the frequency of the pain at night has no diagnostic significance as indicating syphilitic trouble,

Another thing that is exceedingly common, and accompanying the pains, are the sudden muscular jerks, especially of the lower limbs, and frequently of the entire body.

We have another kind of pain, that is known as "patch pain." There is a small area that is painful and aching more or less all the time. These areas are situated below the middle of the lower extremity. They average the size of a dollar, or twice that size, and while they ache all the time, they are in addition subject to the lancinating pains that occur in the balance of the leg. These areas are frequently anæsthetic.

The *anæsthesia* is another very common symptom of locomotor ataxia. It is a tactile and pain anæsthesia. The patient is unable to locate the touch, the pressure, the locality when we make the usual test. We find that the deepest loss is that known as analgesia. Investigating this with a sharp pointed instrument we find that the ataxic is very, very subject to this condition, and this condition is even found in the painful anesthetic spots. Sometimes we find hypersethesia or increased sensitiveness in certain spots of the lower limb in ataxia but these conditions are rather rare.

Ataxics lose the *muscular sense*—that sense which I told you arises from the tendons and joints; when we have him attempt to make specific co-ordinated movements we find that he is unable to do so, this inco-ordination being produced by the interference with the muscular sense.

Ataxics, as a rule, feel as if they were walking on some soft material. Frequently they will remark to you that they have cotton under their feet, or they feel that they are walking on a very soft carpet.

An important symptom is the *loss of the reflexes*. We find upon testing the knee jerks that they are totally lost, although it has been reported that two per cent. of the cases never lose the knee jerk. I myself have never seen a case of typical ataxia in which the knee jerk was not lost, but I have seen cases cf ataxic paraplegia in which it was retained. Frequently we find physicians make a mistake because of their not being able to elicit the knee jerk, due to lack of care and proper precautions.

Nearly all of these cases have some involvement of the visceral functions, the most common of which is the loss of the ability to pass the urine—retention; they suffer from the incontinence of retention—that is, an overflow incontinence. This condition becomes a very serious one with the ataxic and has frequently cost cases their lives owing to cystitis developing and traveling up the ureter to the kidney. In the earliest stages difficulty is experienced in getting the urine started, and when started it is frequently stopped and commences again; after the discontinuance of the stream we find the urine dribbling a little. Later on we may have a true incontinence, due to paresis of the vesical walls when it will be necessary to use the catheter daily and with persistence.

Another of the visceral symptoms are the *crises.* The gastric crises are the most frequent. These gastric crises are crises of hyperchlorhydria, that is to say they are accompanied by an enormous secretion of gastric juice—hyper-acidity. Accompanying the hyper-acidity there is intense pain and vomiting. These attacks usually last from one to twenty-four hours, and are best checked by a full dose of morphine hypodermatically.

The other crisis that is the most common is that of the larynx. When this crisis in the larynx occurs the patient suffers from that peculiar strident noise in breathing, a great deal like the noise in whooping cough. These crises as a rule in sensitive subjects are produced by some apparent local irritation in the throat. Where we find they are very frequent I am in the habit of suggesting that the patient carry a little bottle of the nitrite of amyl and instantly inhale some when he feels the paroxysm coming on. These gastric and laryngeal crises as a rule are very hard to treat and the results very unsatisfactory, and the case is fortunate that has none of these symptoms to deal with.

The *eye* is affected in locomotor ataxia. In the earliest stages we may have first and most prominent ptosis or drooping of the eyelid; and second, paralysis of the external muscles. In some of the cases that suffer from these symptoms we find that there is present, an acute specific infection which will clear upon the administration of anti-syphilitic remedies; but these ocular troubles are a distinct feature of the disease; a far more distinctive feature, however, is the Argyll-Robertson pupil—a pupil as I have just told you that reacts to accommodation, but does not do so to light. As a general rule we have spinal myosis, that is to say a very small pupil.

The so-called motor symptoms of ataxia are a prominent feature of the trouble. They are in reality the result of the sensory disturbances. The muscular strength and development of the ataxic is usually slightly better than normal. There is absolutely no loss of power. This is diametrically opposed to myelitis or inflammation of the spinal marrow.

In walking we notice that the ataxic lifts the leg high and brings it down with a flat foot, striking the heel slightly in advance of the toe, and as a rule wearing the heels at the back. The attitude is very characteristic. We usually see the ataxic going along the street with a cane firmly pressed on the pavement, the legs spread far apart, the feet brought down flat, and his eyes constantly fixed on his feet and the pavement; in other words the ataxic does not walk by means of the co-ordinative apparatus that is attached to the lower limbs, but he co-ordinates by means of the eye, and it is very easy in walking along the streets, even in the earlier stages, to diagnose ataxia, that is to say if you are fond of snap diagnoses, of which I am not. This over action of the limbs is very apt to develop the muscular structures and explains why as a rule the power in the ataxic's lower limbs is not diminished. This man, although old, has enough strength in his lower limbs to resist a pretty strong man. You take an average man that has this trouble and you can put all your weight on his leg and then you cannot bend it.

There is accompanying this disease a troublesome symptom known as muscular fatigue and weariness. The patients complain all the time that they are tired and will say, "I have done nothing, I have rested in bed and yet, Doctor, I feel as tired as if I had walked fifty miles." It is due to the irritation of the nerves of muscular sense.

Lecture II.

I am going to make the subject of locomotor ataxia partially didactic rather than altogether clinical. I told you at the last lecture that we divide the disease usually into three stages. The first of these is the *initial* stage. In the initial stage we find that the patient has difficulty in walking, especially at night, and that frequently upon washing his face in the morning there is a tendency to fall forward.

Prominent at this time are the pains of which I shall speak later; also the absence of the knee jerk. At this period most of the text books will tell you that we have the Argyll-Robertson pupil; my experience has, however, been that we do not always find the Argyll-Robertson pupil at this stage, but we find a sluggishness or slowness in the action of the pupil in its response to light. We find them fixed and very small in addition to this condition of inactivity to light.

In this stage the intense muscular weakness or weariness is present. It is not true weariness as I told you at the last lecture, but a condition of irritation of the nerves of muscular sense.

The sexual function is beginning to weaken, notably in the desire as well as in the capacity to perform the act.

The second stage is what is known as the *ataxic stage.* We find the patient's irregularity and uncertainty in walking becoming apparent to the outsider who may make observations upon it. As a rule he walks very unsteadily and with a cane, broadening the base of support and keeping the eyes more or less fixed upon the feet or upon the ground.

He begins at this period to experience numbness, especially in the regions below the knees, more particularly in the feet. This is a subjective numbness as well as an objective numbness the man has anæsthesia.

Continued during this stage we have the lightning pains. They hold on and gradually become worse. The sexual power is almost entirely lost, and the function of the bladder becoming involved, difficulty in starting the urine and expelling it is experienced. At this period we find the well marked and thoroughly developed Argyll-Robertson pupil.

The first stage may last from a few months to an indefinite period, especially when the patient is carefully treated; the second stage may also be marked by months and even years' duration.

The third stage of this disease is the *paralitic stage.* In this we find that the patient has lost the power of walking, and is usually confined to a roller chair or bed. At this time, through inaction and lack of ability to use the lower limbs, they begin to waste and we find them atrophied. The sexual function becomes absolutely lost and the patient must be catherized constantly and at regular intervals. The pains, as a rule, cease, the pathological condition in the cord being such, practically a destruction of the sensory columns, as to do away with pain.

During all this time the intelligence of the patient remains perfectly clear, with no involvement of the mental faculties whatever, except in those rare cases in which the patient has combined with the ataxia general paresis.

We find these patients very frequently depressed. They are sometimes melancholic. One could hardly expect a patient to be preternaturally cheerful when he is a sufferer from this disease. Locomotor ataxia, as a rule, does not kill the patient. They usually die of some intercurrent disease or affection.

Taking up the symptoms now in detail, and looking at them more closely, we find that the most prominent of them is the *pain.* Those pains are usually termed "lightning," they are pains that come very suddenly and seem to grasp the patient in one terrific, frightful, painful squeeze, and then as suddenly and as quickly depart. These pains as I told you are present early in the first stage and usually last through the second. They are most frequently found in the lower limbs, although we sometimes find them around the trunk and occasionally in the arm, and sometimes neuralgic pains associated with them in the cranium. They are generally worse at night. The moment the patient retires and tries to go to sleep these pains seem to have the desire to come on and harass his rest, and this is one of the reasons why these patients, as a rule, look worn out and tired men—for the disease is mostly a disease limited to men.

The next most prominent symptom is the *gait.* The gait of the ataxic patient is very characteristic. Looking at the patient ready to start to walk, we find that the legs are spread wide apart; the patient resting usually upon a cane; he fixes his eyes upon his feet or the ground. He then lifts the foot high and throws it forward. In this action there is over-action of the flexors of the limb, and the foot is brought down with a great deal of force; that is to say, the muscular movement of placing the foot upon the ground is unrestrained and unco-ordinated. Usually the heels of the shoes of the ataxic are worn considerably owing to the fact that the heel is the first to strike the ground. We find that ataxics have great trouble in getting down steps and in turning corners. Very frequently they will make quite a wide sweep to go round a corner. If they are asked to turn suddenly it nearly always throws them off their balance. They have great difficulty in walking a line and as Sir William Jenner pointed out great difficulty in walking backward. The average man can walk very well backward when he knows that there is no danger of striking anything, but the ataxic is very slow and careful, and the legs in the movement are stiff and inactive.

The next most prominent symptom is the *ataxia itself.* This is of two kinds—locomotor and static. Locomotor ataxia is that unsteadiness of gait that is present upon movement. We notice that these patients are very uneven and shaky in their walk; and if you stand them on their feet with the base narrowed, that is to say with the feet together, we find immediately that the patient begins to get very shaky and trembly and sways both anteriorly and posteriorly. This is known as static ataxia, and if we measure the oscillations by the ataxiagraph we find that as a rule they are much beyond the normal, the average oscillations of a normal individual having been found to be about three inches. Any oscillation beyond this would be considered pathological.

Another of the great symptoms of this disease is *anæsthesia.* This condition begins to develop very gradually in the first stage and reaches a maximum in the second. Anæsthesia is usually most marked in the lower limbs below the knee, though frequently we find bands of anæsthesia running along the arm in the region supplied by the ulnar nerve, and my friend, Dr. Hugh Patrick, has reported several cases in which marked bands of anæsthesia have occurred across the trunk. Frequently we find patches of anæsthesia located over the body. This anæsthesia is very marked. It is an anæsthesia mostly to pain, that is to say if you test the sensation with a sharp pointed instrument, like a needle, you will find that the patient has great difficulty in estimating it. This is usually the first form of sensation that is lost. Next to be lost is the sense of touch. He will be unable to locate where the camels hair brush or pencil is placed; he will be unable to estimate the quantity of pressure, and with how many points he is touched. We find also changed sensations; the patient feeling the sensation on the left side when the point of contact was on the right, or *vice versa*. This is called allochiria. The next greatest loss in the sensory sphere is that of temperature, though this may not be total. First pain, second touch, third temperature.

The next great class of smptoms are referred to the eye, and starting from the exterior we have to consider ptosis or drooping of the eye-lid. It is found most frequently in the earlier stages of the disease, and gives the patient a sleepy look; as a result of the ptosis he throws the head somewhat back in order to get the eyes upon the ground. The outside muscles of the eye are subject to paralysis; external ophthalmoplegia is another one of the great eye symptoms of this disease, involving mostly the third and sixth nerves. Of course, as I have said before, the pupil is constantly involved in locomotor ataxia. We may have the pupil small and fixed, spinal myosis. This is due to paralysis of the sympathetic nerve. We know that the sympathetic nerve produces dilatation of the pupil. It is spinal in origin. The Argyll-Robertson pupil, so typical of ataxia, soon develops with its failure to react to light, and reacting to accommodation. Passing to the interior we find that the optic nerve is subject to atrophy. We usually find these occurring in the middle or latter part of the first and the earlier part of the second stage; if a patient has passed well into the second stage, and has had no atrophy of the optic nerve, we can usually promise him that he will not have this trouble. Patients frequently ask with regard to this.

The next class of symptoms are the *reflexes*, and in locomotor ataxia the loss of the knee jerk is a very early and important symptom. It frequently occurs before the patient has the slightest suspicion that he has locomotor ataxia. He may consult you for rheumatic pains, and remember, gentlemen, that a great many of these cases are supposed "rheumatic," when in reality examination shows loss of knee jerk and commencing ataxia. It is a complete loss and reinforcement cannot elicit the slightest response. As a rule there is absence of the arm jerks and the wrist jerks; in fact the reflexes are lost all through this trouble, for the failure of the pupil to respond to light is the loss of a reflex.

In rare instances we find arthropathies. These are conditions in which the bones become very brittle and break easily. In the repair of the joint nature throws out an enormous amount of callus producing deformity and peculiarities in the appearance of the limbs. In my experience these are the rarest symptoms of ataxia.

The next line of symptoms are the *trophic*, and I will say here that the nutrition or trophic condition of the ataxic is very much lowered. Ataxics, like a good many others of modern life, are apt to be affected with corns. If the ataxic trims his corns close he is very liable. owing to the very low state of nutrition in which his system is, to develop a little round ulcer known as a perforating ulcer.

Very many skin eruptions of a trophic nature occur at rare intervals in cases of ataxia, primary and greatest of which is urticaria. Then we have the erythematous eruptions and sometimes spots on the lower limbs known as petechiæ.

The next set of symptoms are the *crises*. They are usually very, very trying things to the patient. The most common crisis in this condition is the gastric crisis. The gastric crisis, as a rule, comes on unheralded. That has been my experience. Sometimes the patients feel generally bad for a day or two before having this attack; then of a sudden they commence to have intense pain in the epigastrium; they become nauseated and vomit, and are greatly prostrated by the attack; after a day or two of the trouble, or may be for a shorter time if the attack is cut short, it passes away. During the crisis they suffer the tortures of the damned. I know of nothing more trying or exhausting than the gastric crisis during this disease.

Examining the material vomited, and watching the course of the attack, we find that the condition is what is known as intermittent, Reichmann's disease, with hyperhydrochlorie; that is the continuous secretion of gastric juice and hydrochloric acid by the stomach.

As fast as the gastric juice is secreted, irritation of the sensitive nerves of the stomach causes the secreted juice to be vomited. It gives a marked reaction of hydrochloric acid.

The intense sense of weariness that usually accompanies all stages of this trouble is a very difficult symptom to combat and a very fatiguing one to the patient. It is brought about by an irritation of the nerves of muscular sense and persists usually from the first until the middle portion of the paralytic stage.

What is the usual *course* of the disease? Until within the last few years you will find that the text books called the disease "progressive locomotor ataxia." That is certainly a mistake. It was called progressive locomotor ataxia simply because of the lack of ability to recognize the disease in the primary stages. In fact, practically, no recognition of the disease took place until the mid-period of the second stage. At this period, of course, the patient's chances are very much interferred with and comparatively speaking not much can be done. But when seen in the pre-ataxic stage there is no question but what this disease is amenable to treatment if the right course is pursued.

In the second stage we can often keep the symptoms well subdued and make the patient comfortable and useful for many years; this was the opinion of neurologists as voiced at the meeting of the Mississippi Valley Medical Association here last September. Of course, when the paralytic stage is reached, when the destruction is complete, nothing can be done otherwise than euthanasic.

What is the *pathology* of this affection? In discussing the pathology of this affection there is no question but what the most prominent feature of the pathology is the question. what effect does syphilis have upon locomotor ataxia? I am one of those that think that locomotor ataxia is nearly always the result of some pre-going infection, be that the infection of syphilis or otherwise; that the result of the said infection has been to render the nutrition of the posterior columns weak, and produce primary degeneration in the nerve elements themselves.

I see Dana gives in his new work a very interesting explanation of why it is that the infections, and especially syphilis, should attack tke posterior columns. He says that anatomically the exit of the blood is through the veins of the posterior columns and roots; that the spinal cord, as a rule, is unable to empty the blood as rapidly as it ought to be; that the blood laden with the toxine, syphilitic or otherwise, flows into the cord and in making its exit is retained in the posterior columns and roots until these structures become, as it were, thoroughly saturated with the infection.

The toxines (?) seem to select the neuraxone in the posterior columns and in them we have the primary degenerative change. It is not primarily, in my opinion, sclerotic tissue crushing out the neuraxone, but a specific toxine acting upon the neuraxone, and limited, as a rule, to the posterior columns because of the increased saturation of these columns by the specific or other toxine.

Gowers claims that 90 per cent. must have had syphilis because you cannot possibly exclude but 10 per cent. I think the consensus of opinion of American neurologists is that 65 to 70 per cent. give a history of syphiiitic infection. There are a certain percentage of cases, however, that you can obtain a positive history of no syphilitic infection. I have a case in my sanatorium that has never had any syphilitic infection; he has never had connection with any one but his wife, has lived in a little town in the interior of Kentucky, and his wife gives no evidence of past or present syphilitic trouble. It is very rare that we can get such a clean history as this, but there are ten or fifteen per cent. of the cases in which we can exclude syphilis.

The pathological anatomy is primary degeneration in the neuraxone of the posterior columns and roots followed by a secondary sclerosis. We find that the disease is greatest in the lumbar region and usually commences there; gradually extending up and down the cord. Pathologists have found that the peripheral nerves degenerate in addition to the degeneration in the posterior columns and roots.

What is the *prognosis?* The prognosis, as a rule, depends upon the stage of the trouble. I believe if the general practitioner of medicine could be made to realize fully the absolute futility of his attempting to treat this trouble, there would be a greater number of ataxics relieved than there are at the present day. Golden moments are frequently allowed to drift by, when properly applied therapeutics could do much good; day after day, week after week. and month after month of trying to do something (?) on the part of persons unequipped to properly handle these cases is a loss and an injustice to the patient at one and the same time.

The prognosis of locomotor ataxia is best when the patient can be secured in the first stage, before the absolute destruction of the neuraxones has taken place.

In the first stage it is said that we may cure the disease. This is not strictly and actually so. We check the progress of the disease and there is a retrogression of the symptoms. To the patient it is *practically* a cure, to us as physicians it is not. If the average patient could be treated as they should be in the early stages I believe that in a large number the disease would be checked or prevented from going into the second stage.

When the second stage of this disease is reached, even cure, in the sense that I have mentioned, is an impossibility. We can check the progress of the symptoms and cause a retrogression of those already existing. There are some cases that are on the verge of the second stage that have very extensive retrogression of the symptoms and practically get well, and I have such an example in a gentleman of this city who was suffering from the classical symptoms of the first stage, merging into the second, in which he had loss of the knee jerk, the Argyll-Robertson pupil, the pains, slight anæsthesia, and commencing noticeable ataxia. The man recovered to such an extent that I defy any human being to tell that there is the slightest thing the matter with him, except for a small fixed pupil and the loss of the knee jerk. He is now attending actively to his duties.

When, however, we get to the third stage it is an impossibility to make any improvement in these cases. I have never seen a case in the third stage improved, and it becomes the duty of the physician in this stage simply to make the patient comfortable.

Many of these cases have the disease checked and go on for years and years leading lives of comfort and usefulness. Such a case, in the second stage, I have had under observation for the past eight years and except for extreme difficulty in getting about this man is practically as well as any one else.

What is the *treatment?* This disease is probably more mistreated than almost any other that I know of, and I intend to enter very thoroughly into a discussion of its rational and proper handling.

The first thing that will present itself to the mind of the physician will be the question of anti-syphilitic treatment. Locomotor ataxia not being a syphilitic disease we are not justified in giving anti-specifics unless we have evidence of an acute specific infiltration. If ocular paralyses are present we should administer the iodide of potash at once. I am not much of a believer in the use of the mercurial treatment of locomotor ataxia, but where the indications are *plain* for the iodide of potassium I administer mercury in conjunction with potash; but the more experience I have with this disease—and it has become almost daily—the more I am dropping entirely the anti-syphilitic treatment even in the earliest stages.

Having settled the question as to whether anti-syphilitic treatment should be used or not, the next question is that of instructing the patient in the hygiene of his condition. First instruct him with regard to the usual hygienic surroundings, cleanliness, fresh air, and of the necessity of careful attention to his person. The ataxic must be made to realize that he is a crippled person, and like the crippled he must take care of himself. To this end we instruct him to be very careful in regard to the evacuation of the bowels. Ataxics, as a rule, are costive, and the necessity for establishing a regular hour and habit without dependence upon laxatives becomes important. From time to time, however, we may prescribe the fluid extract of cascara sagrada in drachm doses at bed time, and they will be productive of some good.

The next most important question is that of the bladder. The bladder in locomotor ataxia is a constant menace to the life of the patient. Never hesitate to use the catheter where there is the slightest question in your mind concerning the patient's ability to evacuate the bladder. Use early and use freely I am confident that many an attack of nocturnal pain has been brought about by a distended bladder.

We cannot be too careful in the use of a catheter, and I think to the student of medicine it is more important to learn how to sterilize a catheter than to know how to do an abdominal section. I do not think many of you will do an abdominal section for a decade, but you will need to know how to sterilize a catheter, perhaps, a few days after you get out in practice. Remember that it is the little things that are frequently of more importance than the big. The sterilization of the catheter may mean as much to the ataxic as the sterilization of instruments used in an abdominal section, means to the patient on the table.

We next tell him to keep his body clean. By that we mean to take a sponge bath every day, followed by friction. Twice a week, take a full, warm bath, preferably at night, being careful not to catch cold. If, however, the man is taking a regular course of treatment, such as I shall map out. this precaution in regard to the bath is not necessary, but where you are handling these cases without the advantages of an institution you should particularly look after this.

Another important point is the treatment of corns. Ataxics are liable, like the balance of humanity, to the development of corns, and I instruct all ataxic patients to have their shoes made broad with plenty of room for the extension of the foot and with very thick soles. If a corn has existed or developed it is exceedingly dangerous for the ataxic to cut it, and it is better to warn him in advance than to spend weeks of time in treating a little perforating ulcer. We should tell these patients never to cut their corns, but if they wish to remove the corn to soften it with some alkali like caustic potash and rub it with pumice stone, or get a file and file off the top of the corn from time to time.

The most important factor in the treatment of this disease, from the non-medicinal standpoint, is *rest*. One of the advantages that comes unquestionably from institutional treatment is the absolute cessation of exertion, mental and physical. Take a patient that is in bed from 8:30 o'clock at night until 8:00 o'clock in the morning, and who is in bed one-half to three-fourths of the day, and you have enforced upon him a physical and mental quietude that it would be impossible to obtain in his home. In their homes, when they are feeling better, they transgress all the iron-clad rules that you may lay down for them. It is humorously put by Dana, in his last work, that even in the charity hospitals of the cities, where we have to deal with thin skinned milk and questionable eggs, ataxics improve more than in the fine mansion.

I have kept men in bed as much as three or four weeks at a time with advantage. I usually adopt the partial rest cure, allowing him up a few hours each day, being governed in the quantity of rest by the results obtained. If the pain ceases, the ataxia gets better, the patient feels stronger, and the sense of fatigue disappears, we are on the right track. If he does not improve, put him in bed and keep him there except while giving treatment.

What drugs are useful in the treatment of locomotor ataxia? The drugs that have the most repute and the ones that have given me the very best results are nitrate of silver and iron. I used to use the red iodide of mercury, but I am ceasing to do so now. Nitrate of silver is, without doubt, the one drug, in my opinion, upon which we can look for some assistance in a *system of treatment*. It should be given in pill form three times a day, immediately after eating, in doses not exceeding one-fourth of a grain and continued for three or four weeks. Then stopping it for two or three weeks and beginning again.

I am fond of giving the following prescription:

℞. Argent. Nitratis.......... gr. x.
Aluminii Celoridi......... dr. iss.
Ferri Redact............... dr. i.
M. ft. pil. No. xl.

You can either make forty pills and put in capsules or leave in pill form. It does not make any difference. The capsule looks nicer.

I have sometimes obtained some little benefit from a course of medicinal treatment of the foregoing prescription for two or three weeks, and then following its use by one of the preparations of the hypophosphites. I prefer the liquor of the hypophosphites without sugar, and which contains a large dose of strychnia. I continue this elixir for two weeks and then go back to the nitrate of silver prescription. Other drugs suggested for this trouble are, in my opinion, valueless.

Aluminum certainly has some effect upon the pains, given in combination with silver. It was introduced two or three years ago by Gowers. I am certain that it in some way enhances the value of the nitrate of silver.

The next question in the treatment is the management of the *pains* The best treatment for the pains of ataxia is rest and the evacuation of the bladder at night by means of the catheter. One of the next best means that I know of is the suspension of the patient two to three times a week from a half to four or five minutes. The way I do this is to have the patient suspended, first resting largely upon the arms and then gradually raising them until he hangs suspended entirely by the chin and occiput. I think it is a dangerous thing to allow him to be lifted at once from the ground by the head and neck alone. Massage is of benefit in the superficial patch pains.

Of the drugs that I have used for the relief of the pain, phenacetin stands at the head of the list, next antikamnia; and upon these two drugs alone do I depend for the cessation of the pain. You can enhance the value of phenacetin if you will give it with bicarbonate of soda. In instructing patients to take these drugs, for the relief of pain, we should tell them to take them the moment the pain starts.

With regard to gastric crises, I never hesitate for a moment nor attempt to palliate them, but give a full dose of morphine hypodermatically, preferably in the abdominal wall and then administer a dose of salts. I am one of those who are a firm believer in the fact that epsom salts has a soothing influence over abdominal pain.

The *insomnia* that accompanies locomotor ataxia is best managed by the evacuation of the bladder at bed time and the cessation of the pain—for it is an insomnia of pain. If the patient, however, still cannot sleep, because of nervousness and restlessness, a moderate dose of the bromides at bed time will be of service. Of course the medicinal agents here suggested are merely for temporary use and comfort of the patient. If we increase the patient's comfort there is every chance that our fundamental therapeutics directed to the nerve elements themselves will be more efficacious.

With regard to the question of food I do not limit the ataxic very much, but advise him with regard to the quantity, quality and mode of eating. I suggest to him that he eat moderately, chew the food carefully and that it be of the best quality. There is certainly some advantage in a diet that is non-fermentative in cases who have a good deal of gastric or intestinal trouble, but otherwise I do not, as a rule, limit the diet of the ataxic.

As to the direct treatment of the disease itself, I place *Hydrotherapy* at the very head of the fundamental treatment of the disease. I have treated these cases in this way for the past eight or nine years, and I feel justified in saying that nothing equals the benefit which arises from a course of water treatment.

One of the simplest methods of treating this trouble is the full bath lukewarm. The temperature of this bath should be ninety or ninety-five degrees I have the patient placed in the tub for ten or fifteen minutes, adding to it as I may deem best a little mustard or pine needle extract, and while the patient is lying in the bath I have my attendant commence at the feet and give him massage all over the body, but especially the legs and spine. This is accomplished, working under water and starting first with the legs, then the man turns on his side in the bath and the spine is rubbed vigorously. I have obtained two or three hours sleep in an exhausted patient immediately following this bath, and it certainly does limber the lower extremities of the ataxic, and relieves the irritation of the nerves of muscular sense and enables them to get about in a way that they could not before.

The next form that I have used is the *half bath* at seventy-five or eighty degrees. Seventy-five or eighty degrees is pretty cool. The patient is seated in the bath, the water reaching to about the middle of the trunk. The attendant, as in the other case, commences with the feet and rubs the limbs very vigorously up to the trunk and then rubs very thoroughly all over the lower portion of the trunk. This bath results in the same effects as the other with this advantage that it helps to overcome the constipation. Remember that warm water produces constipation and cooler water overcomes it.

Another form of bath is the *heavy brine full bath*, putting as much as a pound of salt to a gallon of water and allowing the patient to recline in it, making the temperature ninety or ninety-five degrees, or what is preferable starting with ninety-five degrees and reducing two or three degrees daily until eighty-five degrees is reached. As in the other two baths the attendants apply superficial friction, or *effleurage*. This has, in addition to the sedative influence I have spoken of before, the effect (to a certain extent) of stimulating at the same time. It is a stimulo-sedative bath and very frequently patients request that this treatment be repeated.

As the patient gets better we may introduce further and stronger methods of treatment, viz., the *rain bath*; commencing with the water at 104 degrees and allowing it to play vigorously over the body under a pressure of twenty to thirty pounds for one or two minutes, then within half a minute to gradually reduce this to ninety degrees, decreasing each day until we reach eighty or seventy degrees. This is followed by quickly drying the patient and, if necessary, wrapping him in a blanket or sheet and allowing him to rest. Wherever we use active hydrotherapy, as the rain bath, we should insist upon patients resting from fifteen to twenty minutes before putting on their clothes. In my sanatorium I require them to rest an hour or two after such treatment. If the patient improves under the rain bath we may carry hydrotherapy further, by the use of a strong jet to the spine. By a strong jet to the spine I mean a jet that is under a pressure of thirty-five or forty pounds to the square inch; commencing with a temperature of 108 degrees for one or two minutes it is followed by a rapid reduction to seventy degrees for ten or twenty seconds. We wish the change to be sudden and the patient to be exposed to the cold in this bath only long enough to bring about the "hydrotherapeutic reaction."

For the locomotor ataxic there is nothing so dangerous as the average Russian and Turkish bath; inaccurate as regards temperature, inaccurate as regards duration, inaccurate as regards massage, inaccurate as regards everything, and administered by an attendant under the instruction of the patient himself. I think that it has done as much as any other one thing to bring hydrotherapy in this disease into disrepute. I would no more allow an ataxic to enter the average Turkish bath house than I would think of allowing him to go to the lower regions.

Cold baths without friction are a menace and danger to the ataxic, but the cool and tepid bath administered with friction as I have described is practically devoid of danger. As a rule all of these treatments have for their object the lessening of the nervousness, the relief of the depression, the improvement of nutrition and the general invigoration of the patient. *They certainly have some specific influence over the nutritive changes in the spinal cord and tend to check the degenerative condition in the neuraxone and the secondary development of the sclerotic tissue.*

The *electrical* treatment of locomotor ataxia is an important one, and the two currents that give me the best satisfaction are the galvanic and the static. If you give the *galvanic current* either from the epigastrium or the feet to the nape of the neck, say the negative pole at the epigastrium or feet and the positive pole at the nape of the neck, in dosages of from fifteen to forty milliamperes, continued from five to ten minutes, commencing with five and increasing a minute a day until we reach ten or even fifteen, favorable results begin to be apparent after from fifteen days to three weeks treatment. Another current that is very similar in its results and identically similar in its application is the *sinusoidal current*, a current resembling in its general properties the faradic, the difference being simply in the curves made by the interruptions.

The other form of current that I use is *the static*, and to be of the slightest value in these cases enormous quantities must be used. I apply heavy sparks to the spine and to all the anæsthetic areas of the limbs and arms. I am confident that the heavy static spark applied over the bladder will favor its ability to empty itself, an observation that was made originally by Benedict, of Vienna, some seven or eight years ago. We can frequently relieve the nervousness and restlessness of the ataxic by giving him insulation from the static machine from five to fifteen or twenty minutes.

Another mode of treating these cases is with *massage*. Considerable caution must be exercised in the method of applying it. Very gentle, superficial massage is useful at the start, later on we can apply more vigorous kneading and deeper work, especially in the abdomen. In the majority of cases, however, I have found that rapid mechanical vibration, such as is obtained by mechanical massage, is much superior to the effects produced by the application of manual or hand massage. I rarely ever use massage in the specific treatment of locomotor ataxia but prefer simply to use it as an assistant or adjuvant of the treatment.

Suspension is of undoubted value in a good many cases—fifteen to twenty per cent. It certainly assists in relieving the pains and in helping the ataxia. The general rationale of its action is the stretching of the spinal column and spinal nerves that leave by the intervertebral foramina, and as I told you in the pathological anatomy of this trouble, that as the peripheral nerves are largely affected, this stretching would naturally be of greater benefit to them than to the spinal marrow within the canal. I usually start with one-half to three-fourths of a minute and increase it to two or three minutes, two or three times a week. I teach my patient to gradually become accustomed to suspension by the head alone and to gradually raise the arms until he hangs entirely by the chin and occiput.

In the second stage, or stage of ataxia that is visible, we may frequently assist in overcoming this unsteadiness by persistent *exercises* carefully and thoroughly performed. These exercises have for their object the training of the co-ordinative power. They were recommended by Dr. Frankel and the method has since been known by his name. I have seen patients where it was cautiously used improve very favorably in the gain of co-ordination and strength, together with confidence in the use of the limbs.

I wish to make some few final remarks upon our duty toward ataxic patients. My plan has always been when the patient comes to me in the earliest stages to tell him very frankly, fully and freely that he has this trouble and that his sole chance of improvement and permanent benefit lies in constant, careful and systematic treatment during the initial and early part of the second stage. I try and enlist his sympathy, not only for himself, but in the treatment, and educate him to the necessities of the occasion. Those who do not know how to act with nervous patients will find this a rather trying ordeal, for the majority of people believe that locomotor ataxia is a disease for which there is no cure, for which there is no hope, for which the patient had simply better make his will and get ready to pass over Sharon's dark and gloomy waters; such we know is not the case and by taking his attention from these things and fixing it upon the facts we can accomplish a great deal.

My experience has been that ataxics should not give up their business but should be willing to compromise; that is to say a business man should be willing during these two or three years that he is going to be under your close observation to, from time to time, be cut off from the world, to take absolute rest, in courses of from two to five weeks—and, as far as I am concerned, I want them in my sanatorium in order to give them absolute rest.

With a careful course of treatment, freedom from business cares and worry, the ataxic makes radical imprvement. Later you say to him, "do not go down town to your business early; get you a low buggy, and walk and use your muscular system as little as possible. The only time you need to use it will be in the performance of the co-ordinated movements. As far as possible leave the actual detail, the annoyance, to your partner or some one else who is interested in your business. Be content to take care of your self and lengthen life rather than to make money getting your object."

I do not believe that any benefit can be derived from the use of systematic therapeutics in this disease without the full and conscientious assistance of the patient. If he is not interested enough to take the treatment as you wish him to take it, he had better not take it at all; for it will bring discredit upon the disease, upon you and upon him.

These patients have always had my most profound sympathy. I have always felt that "Jordan was a hard road to travel" for them; that they were the "black sheep of the flock" of chronics; the opprobrium of the general practitioner, dismissed with a simple prescription and few words of kindness and caution; they become literally the outcasts of disease; without hope, without care, without attention; without anything except pain, suffering and distress staring them in the face. This was brought forcibly to my feelings by a case that I had during the first three months of my professional career, and that case stirred my sympathy to such an extent that the study of this disease has almost come to be with me a pet subject.

We can sometimes imbue them with a good deal of fortitude and patience. The kindly thought and act will show more, if displayed with tact, the real feeling of the physician than a dozen pathetically turned sentences of sympathy and regard.

We can imbue these patients with hope, we can invigorate their mental power of resistance to disease if we know how. There is nothing that will do this more than the feeling of absolute confidence in the truthfulness of a physician. There can absolutely be no value from mental therapeutics employed by a liar, and the man who lies to his patients is bound in a very short time to reach the tag end of his rope. Even if you do not want to look at it from the right side of morality, old Benjamin Franklin's idea that "Honesty is the best policy," holds good in these cases.

The Health of Mr. Gladstone.

Mr. Gladstone has suffered since the autumn of last year from a chronic nasal catarrh accompanied by facial neuralgia which resisted all the most careful treatment. Therefore, at Mr. Gladstone's urgent desire and because the climatic influence had previously always restored him to health, he was allowed to go to Cannes in spite of any risk attendant upon the long journey. At first the neuralgic pain almost disappeared and there were but fitful attacks. Subsequently the presence of the Mistral with cold and wet weather produced the return of the pain, but at no period has there been any evidence of increase of other inflammatory symptoms. The pain has continued since, though varying from day to day. This has doubtless had a depressing and disappointing effect upon the distinguished patient, but otherwise his general physical condition remains very much the same, and there is no further development to record. We are happy to be able to publish this information upon excellent authority, inasmuch as the rumors that were rife in the press during one or two days this week have been of a decidedly disquieting character.

Phthisis and Child-Bearing.

Dr. Townsend, in the Boston Medical and Surgical Journal, states:

1. Conception may take place even in advanced pulmonary tuberculosis.

2. The disease is generally held in abeyance during pregnancy, although it may advance or even originate at this time.

3. Labor is short and easy in proportion to the severity of the disease.

4. During the puerperium a rapid advance, leading in some cases to speedy death, occurs; or the disease may originate at this time. In either case the temperature chart suggests puerperal sepsis.

5. Premature labor is more common the more advanced the disease, although pregnancy often goes on to full term even in advanced cases.

6. The average weight of the full-term children and their general condition at birth is not markedly below that of children of healthy mothers, except in the rare instances of congenital tuberculosis.

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SUBSCRIPTION. $2-50 PER YEAR,

THE SEABOARD MEDICAL ASSOCIATION OF EASTERN VIRGINIA AND NORTH CAROLINA--A NEW ORGANIZATION.

At a meeting held January 20th, at Norfolk, Virginia, a number of physicians of Eastern Virginia and North Carolina organized themselves into an association which adopted the name of "The Seaboard Medical Association." The meeting was called to order by Dr. H. M. Nash, of Norfolk, and an address of welcome was delivered by the Mayor of the City. About one hundred of the representative medical men of Norfolk and contiguous cities were present. After the reading of papers and discussions thereon, the following officers were elected for the ensuing year:

President, Dr. J. F. Lynch, of Norfolk city.

First Vice-President, Dr. Thomas F. Riddick, of Perquimmons, N. C.

Second Vice-President, Dr. J. H. Peck, of Hampton, Va.

Secretary, Dr. J. E. Phillips, of Suffolk, Va.

Treasurer, Dr. L. Gwathmey, of Norfolk, Va.

We congratulate the members of this newly formed organization and trust that it may be the means of mutual benefit in the social and scientific relations of the two States. We are gratified, also, to note that the meetings are to be semi-annual instead of yearly. This can but facilitate the meetings and promote the interests of its attendants. A new link is thus formed in the cosmopolitan character of medical science.

PRACTICE OF MEDICINE.

The past fifteen years marks an epoch in the practice of medicine and surgery scarcely equalled in the annals of our profession. No doubt many a physician, who graduated twenty-five or thirty years ago, is devoutly thankful that he has been permitted to live to see the changes and improvements this period has brought to us. Unlike the discoveries of *Harvey* and *Jenner* which stand as monuments marking eras of progress, the present advance or "new departure" is not the result of the labors of any one man, although we recognize *Lister* and *Pasteur* as foremost in the line of patient and industrious scientists, whose investigations have thrown such light on pathology as to lead to unparalleled progress in the practice of all branches of medicine and surgery. Bacteriologists and chemists have been busy, confirming or disproving alleged facts and theories, or pushing their inquiries towards new fields of discovery. It is easy to see, however, that Medical Societies or Associations have contributed immensely to the recent improvements referred to. This has been accomplished by the open and free discussion, and by the encouragement of members, in all fields of practice, to bring in their contributions; thus adding something of value from all points of observation.

Much credit is due our teachers in the Medical Colleges and post graduate schools for the part they have taken in forwarding the work of progress. Time was when we looked upon them as the sole "authorities", but now it is conceded that not all the able men of our profession hold chairs in the medical schools. The Medical Society gives every practitioner an opportunity to be heard. Men who place no high estimate on their teaching ability, confined to obscure and restricted fields of labor, but who observe and think and reason, may be heard, as well as those on more favored fields. What is needed in the medical profession, at the present time, is more thorough and careful clinical observation. By all means let the laboratory work continue, but the therapeutics, suggested by the laboratory researches, should now, and for some time to come, be carefully observed from the clinician's standpoint. As hospital practice presents some unfavorable conditions for such observations, this work can best be performed by the so called general practitioner. The best medium for him to make his observations and conclusions known to the profession and the world, is the Medical Society and from thence to the Medical Press. I therefore wish to offer a plea for the organization of County Medical Societies. In most of our large cities and towns the medical profession is already quite well organized for scientific work, but it appears probable that there are many quite populous counties in the United States where no Medical Society exists.

In Pennsylvania, with its sixty-six counties, twelve were not represented at the last meeting of the State Medical Society. One has since fallen in line, and organized. One has an independent Medical Society, leaving ten counties as near as I can ascertain, without any medical society. The State Society of Pennsylvania may, I think, be justly referred to, as a model of simplicity and excellence of organization, providing, as it does, for the complete organization of the profession of the State, by counties. Yet with such a Society as leader, ten counties remain unrepresented. If such is the condition of affairs in Pennsylvania, which has within its borders a center of medical education of world wide renown, it is fair to presume that even worse conditions may exist in other States. The difficulties to be overcome in maintaining a good county medical society, in localities not well provided with railroad facilities, are indeed great, but the necessary sacrifice of time and effort should be made. If there is a county in any State or territory, with five or more practitioners of medicine a County Medical Society should be organized. The members will be well repaid by the mutual benefit of an exchange of ideas. The practical lessons of experience learned by each, becomes the acquisition of all. Besides, the members are brought into closer relation with the profession at large—no longer stragglers, but regularly enlisted, for more efficient service. For the profession, outside of large cities, there is no better way to organize than by counties. If these hints regarding the importance, the urgent need, and the utility of county medical societies, are read by any physician who is not, as yet, afforded the privileges and advantages of such a society, I trust he will proceed at once to secure such an organization for his county.

THE IMPORTANCE OF EARLY RECOGNITION OF DEFECTIVE NUTRITIVE STATES AND THEIR REPARATION.

Aside from the better and more accurate general knowledge of hygiene and its application in preventing infectious diseases, there is probably no factor which has been so potent in extending the age of vital expectancy as the more general early recognition and reparation of the defective nutritive conditions obtaining in individuals, particularly in infancy. How to nourish the infant, deprived of its natural food, is a problem not entirely solved; but the increase in knowledge regarding the infant's dietary during the last generation is certainly very encouraging. The pendulum of scientific infant feeding may have swung too far in some directions. Notably in the prolonged use of sterilized milk and the too prevalent use of fabricated foods which are said (by the manufacturers, of course) to be a perfect substitute for mother's or cow's milk. Many of the various prepared foods are certainly very useful, and at times their use, to replace milk, is paramount. The error is in continuing the food for too long a time; and the same thing may be said of sterilized milk. "Show me a child fed on baby foods or sterilized milk until the third year," said a skilled pediatrist, "and I will show one that is anæmic, provided inorganic medication has not been followed at the same time." This is unfortunately very often true. Of course the child fed on sterilized milk or prepared foods for a long time may have gained in weight, perhaps has even become corpulent (the photograph tells us that) but the increase of weight has been caused by an excessive deposition of fat and not by normal increase of bone and muscle. The little one with its double chin may be pretty but often far from healthful. The reason is plain; the prepared foods contain too little asssimilable nitrogenous products. Mind, we don't say nitrogenous products, but assimilable nitrogenous products. The prepared foods are, as a matter of course, sterile and present, in this respect the disadvantages of sterilized milk. Certain bacteria seem to be necessary for normal digestion, or at least facilitate it, especially to complete the intestinal digestion of albumen. In theory, and it is sustained by practice, where the milk of a healthy woman cannot be had, cow's milk, without sterilization, unless digestive disturbances warrant it, should be used. That the cow should be healthy is simply stating a truism. And when sterilized milk fails resort to prepared foods, but only as long as may be quite necessary. Even then we have seen good results from the careful but constant administration of egg albumen and some easily digested starchy food. And then after childhood begins we should not lose sight of the nutritive state. In infancy the need of proper nourishment may be more obvious and pressing, but the children of cachectic parents should be followed from the cradle almost to the altar (if they don't wait too long), and bear in mind "as the twig is bent," etc.

THE North Carolina Medical Society will meet in the City of Charlotte May 3d. 4th and 5th. The Committee of Arrangements with Dr. R. J. Bravard as chairman, is a sufficient guarantee that the Society will be entertained in a strictly first-class style.

REFLEX IRRITATION IN DISEASES OF WOMEN.

The frequency with which even well informed and experienced practitioners of medicine take only a casual and superficial view of symptoms in diagnosis is appalling, to say nothing of the bad example set the younger members of the profession. Without pausing to ask himself what such and such a symptom means or what a certain group of symptoms indicates, the physician says she is nervous, prescribes a sedative and politely bows himself out. Antisymptomatic treatment relieves temporarily perhaps, but no sooner than the effect of the drug wears off, do the reflex neuroses come trooping back to harass poor suffering woman. Some time ago a female came to the writer for advice, describing a pain in the hip and thigh, which was worse during menstruation. She said the doctor treated her for rheumatism for several months but made no examination. Investigation revealed a retro-flexed uterus, and prolapsed ovary. These were placed in position and she remained comfortable and happy.

Another woman of sixty-nine years of age called in a physician of high standing in the profession. She complained of pains in the head, side, back and other neuroses. The bronzed complexion and general character of the case led the writer to suspect that what had been treated as muscular rheumatism was perhaps senile endometritis. The examination corroborated the diagnosis and appropriate treatment soon relieved it. In both cases simple carelessness and inattention to details caused mistakes which no doubt injured the reputation of the former attendants who really knew better. Both physicians were well educated men, such indifference, therefore, and lack of energy in ferreting out the true cause of trouble seems all the more culpable in men of this sort. The uterus is the focus of many and varied reflexes. Whenever a female patient comes complaining of the multitudinous indefinite sensations that go to make up the condition termed nervousness, along with pains in the back and head, this organ rests under suspicion. An examination should be advised. These patients are frequently anæmic. They may suffer with neuralgia, fugitive pains all over the body, insomnia, loss of appetite. They are nervous, restless, melancholic, lose all interest in their surroundings, are subject to fainting spells, hysterical, prone to emotional attacks, hot and cold flashes, sensations of numbness. They dread paralysis and sometimes say their limbs are so numb they can not move them. They are troubled with cold extremities, bladder and rectal disorders, eyes hurt, headache, limbs and back ache and the whole world is out of joint for them. The vicious circle is complete, and varied only by acute outbreaks in different parts of the too susceptible organism. From specialist to specialist they wander in vain hope of relief. Each centers his *specially* acute mind on a symptom without ever perceiving the general condition underlying it. The oculist prescribes glasses, the neurologist nerve tonics, massage, electricity, etc. They are treated for stomach troubles, liver complaints, kidney disease, cystitis, lithæmia, rheumatism, constipation and almost everything but the right thing. Let the medical man bear in mind that the symptom is not the disease but only a manifestation of it. Too often is this forgotten. If only the practitioner would look a little further than symptoms, search for their cause and seeking to draw a logical conslusion as to the condition they represent, so many mistakes would not be made which draw the profession into disrepute. Grouping symptoms, putting two and two together, to make the case, and close observation of details will usually lead in the right direction. A systematic and thorough physical examination will then as a rule reveal as a cause for these neurotic manifestations, the presence of endometritis, ovaritis, flexions, versions, prolapsed uterus or ovary, cervical erosions and lacerations, neoplasms or other centres of reflex nerve storm. Intelligent treatment of the primary condition causing these neuroses will not only prove the correctness of the logical conclusion, but will be of more lasting benefit than all the antisymptomatic treatment capable of being concocted by a resourceful profession.

THE THERAPY OF NATURE.

In our systems of therapeutics too little attention is paid to Nature. The average physician endeavors to antagonize the condition he finds in his patient by the use of remedies which are supposed to bring about that result. Hence this system has been nicknamed Allopathy by the Homeopathists. If the temperature is too high, he endeavors to reduce it. If the heart beats too rapidly, he gives remedies to retard its speed. If the bowels are too sluggish, he orders purgatives. He forgets that nature has benignly provided for the elimination of the products of diseases, as well as the results of the wear and tear of the system. The fever, with its elevation of temperature, the increased action of the heart and consequent acceleration of the pulse, are the efforts of nature to get rid of the disturbing element, which, instead of being repressed or abolished, should be allowed to do their work. How often do you see constipation relieved by a temporary diarrhœa. Here the accumulation and impaction of fæces creates an irritation which induces peristalsis, accompanied by a slight catarrhal exudation, which removes the offending substance. In such cases a change of diet, such as fruits, would be infinitely preferable to pills, or other purgatives, accomplishing the work more safely, mildly and permanently. When the heart is beating wildly, nearly doubling its usual rate, this increased speed is necessary to carry off, with sufficient rapidity, the additional waste resulting from the disease, as well as to carry the materials for repair to the diseased organs. If now you retard the action of the heart, thereby producing a slower current in the circulatory apparatus, you thwart the efforts of nature to remove the disease, diminish the supply of nutritive material, and may possibly bring about a fatal result. Let the physician study closely and earnestly the natural workings of the human system; nutrition, assimilation, depuration, with every thing that pertains to them; their irregularities, their obstruction, the best means of aiding them without injury. Let him avoid interfering with nature, giving her full scope, only affording a little assistance when she is weak; but always letting her alone when she is able to do her own work. By pursuing this course he will attain results that will astonish him, and be most gratifying to his patients and their friends.

SUGGESTION AS A THERAPEUTIC AGENT.

It was the *mode* a decade or less ago to allude to hypnotism and suggestion-therapy in perhaps altogether a too optimistic way. This was not the first time, to be sure, seeing that from the time of the magnetized tree and the other wonderful achievements of that magnificent charlatan, Herr Mesmer, down to the present time there has been a number of cycles of alternate extollation and condemnation of the practical use of animal magnetism, mesmerism, hypnotism and suggestion in medicine. It is, however, altogether unlikely that the now widely disseminated and tolerably satisfactory knowledge of hypnotism and suggestion will again be lost sight of, thanks to the labors of Charcot and Bernheim, with their followers in France, and Wundt, together with many eminent neurologists in Germany. However the *mode* has been for some time, and is, on the decline, it we may credit the condemnatory notices which are seen from time to time in our medical journals. This partial downfall was to be expected, as is that of all panaceas which are rather hoped than believed to cure every thing, and in the end turn out to cure only some conditions, or not any thing. Be this as it may, suggestion as a factor in the alleviation and, perhaps, cure of some psychopathical conditions has always been prominent and will doubtless continue to be, the decline of the *mode* notwithstanding. The trouble with most of our medical fashions is that we carry them to extremes. If local venesection is good, will not general blood-letting be better; or if blood-letting in small quantities proves beneficial, why not take away large quantities? Or if a mild laxative, by unloading the intestines, secures a favorable result in some forms of peritonitis, why not purge the patient for several days; and if opiates in the same condition prevents peristalsis, and is desirable, why not carry it to narcotism. So with suggestion. If it can antagonize a morbid idea and thus make it inoperative in the consciousness, why not induce its more marked states even to the production of lethargy. The fact is we should not follow blindly the *mode* in this any more than in other things, and should only carry the suggestion to such a state as may be necessary to accomplish the purpose, and this every physician does daily even if unconsciously, and always has, for that matter. In fact, the use of drugs to prevent the consciousness from recognizing pain and other disagreeable feelings of central origin, if they effect a cure at all, do so by a process analagous to auto-suggestion, if we are permitted to enter the realms of psychology for an explanation.

CONSERVATION OF THE OVARY.

Dr. Dunn, of California, late assistant to Dr. Pozzi, of Paris, read a paper, on the Conservation of the Ovary, at the recent meeting of the American Association of Obstetricians and Gynecologists, at Niagara Falls, which elicited a warm discussion at the meeting and has been discussed very considerably by the profession since its publication. Dr. Dunn is a specialist of wide experience; he is an acute and careful observer, therefore, his opinions are entitled to at least calm consideration. He reports on one hundred cases observed by him in the St. Louis and Broca Hospitals in Paris, after complete oophorectomy, that in 78 per cent. there was subsequent loss of memory, in 60 per cent. vertigo and heat flushes and in 50 per cent. change of character.

In 75 per cent. there was diminution of sexual desire, and varying percentages had other inconvenient symptoms after the operations. No one who has carefully observed will deny the fact that castration of the female was for a time, and is perhaps yet, carried to an unjustifiable extent. There is danger, however, from the influence of just such papers as that of Dr. Dunn, that the pendulum will swing too far the other way. His paper was a masterly effort, and when taken as a whole was scientific and rational. It was not so radically conservative as some quotations from it would lead us to believe. There is another side to this question which was well presented in the discussion of Dr. Dunn's paper. To analyze the real conditions in the one hundred cases cited by him, we should have a careful statement of the conditions which led to the operation in each case and the probable results if they had not undergone an operation. The probabilities are that had operation been deferred until the time at which these observations were made, the conditions of the vast majority would have been much more pitiable than the doctor found them. We do not for a moment advocate indiscriminate castration on the appearance of disease of the ovary. We do claim, however, that of two evils we should choose the least, and that in actual disease of the ovaries the ultimate results, where the organ is allowed to remain, are as a rule much more grave, mentally, morally and physically than they would have been had castration been resorted to.

THE NON-MEDICINAL TREATMENT OF PHTHISIS.

The vast majority of physicians, both special and general, ignore too much the non-medicinal factors in the treatment of pulmonary tuberculosis. While not wishing to detract from the various specific and other remedies largely employed, we feel it is the duty of the doctor to lay more stress on measures directed more to the morale and hygiene of the case. True it is no easy task to obtain the patient's co-operation, but our duty is none the less clear, especially when we consider that when systematically applied in certain sanitaria, more especially in Germany, they have sufficed to cure a large percentage of cases, and this without any additional medicinal agent.

It is regrettable that want of space forbids hardly more than an enumeration. But we want to specially call attention to four general measures. These are, prevention of re-infection, abundance of pure air, hydrotherapy and diet. The first, as far as attainable, is a "sine qua non". This includes a careful disposition of the sputum, the proper cleansing of the mouth, nose and pharynx and the removal of all catarrhal states of those parts. It is also well to remove entirely all facial adornment; for the danger from dried sputum in the hair of the beard is too great and overshadows any other advantage it may possess. The second, pure air, is very important. In the living and sleeping apartments arrangements should be had for a constant exchange of the atmosphere. This is best attained by open windows both day and night. At the same time it should be properly warmed and moistened. As far as convenient the whole life of a patient should be spent out of doors, accompanied by an abundance of cheerful, stimulating exercise. Our third, hydrotherapy, is not sufficiently appreciated. This neglect is helped along by existing lay prejudices. When employed, it should be so used as to exert its stimulant properties. When the general condition is good the cold affusion is the best and most convenient. Otherwise we may use the cold wash-off, the damp and the dripping sheets. The temperature of the water should range from 60 deg. to 75 deg. F., with a mean of 65 deg. F. The administration should be twice daily at about 11 a. m. and 4 p. m. For details as to these measures, the reader is referred to the works of Winternitz of Vienna, Fleury and Duval of Paris, and Simon Baruch, of New York.

The diet should be abundant, digestible, and nutritious, and above all, properly cooked. The legumens are of special value. Of these, preference is to be given to young peas, tender string beans and the flageolet bean. Oatmeal carefully steamed and served with salt and milk is a valuable article of diet. Butter liberally used on everything and with everything, cream, eggs, etc., should receive all possible attention. Of meats, roasts, chops, and steaks. Food should be administered five or six times per diem. This should be associated with an abundance of out door exercise. In fact the whole life of a phthisical patient should be spent out of doors.

IS THE NEW ALWAYS THE BEST.

This is pre-eminently the age of new things; nobody will doubt the assertion. Is it the period of the best things? There are those who would answer this question negatively. The shelves of our drug stores are bending beneath the multitude of new medicines. One pharmaceutical firm, within the period of a single decade, has placed upon the market over sixty new remedies, and this is one only of the many houses in our own country who are rivaling each other in their efforts to flood the profession with these recent discoveries. It seems to be a fact, however, that with very few exceptions, when physicians step outside the well beaten pathway of our really old and tried remedies, and fly to the new, they are sadly disappointed, and soon return to their first love. Some one has said: "There is a wonderful sameness about the rise, progress, culmination, decay and ultimate fall into oblivion of these ephemeral products—new remedies." This is about the story. At the out side, all the reports which come to us are favorable; then some one records a failure; more failures follow, until the time comes when the product falls into contempt. Take, for example, the history of cun durango, introduced as a sure cure for cancer, it sold for one-hundred dollars a pound, faster than it could be imported. Soon the bottom dropped out of the delusion, and the drug passed almost completely out of sight, the Germans coming to the conclusion that although it was no cure for cancer, it was of some value in the treatment of gastric catarrh. We do not wish to be arrayed upon the side of the pessimist, nor to be classed among the non-progressionists, yet we believe that we should be extremely careful in our indorsement of new remedies: "Approaching the question in that judicial spirit which made Darwin's reasoning so convincing, with the desire to find out simply the truth, and not endeavor to prove or disprove anything." We have read somewhere that our grand farthers used to cure headache by kissing a pretty girl, and the comment was that "some of the old time remedies are difficult to improve upon." We agree fully with the commentator.

THE "X" RAY FOR THE GENERAL PRACTIONER.

There is no doubt that the possession of a good "X" ray apparatus is an advantage to the general practitioner in his ordinary work. The location of foreign bodies, splinters, broken glass, needles and bullets is demonstrated with a certainty possible in no other way and many a long and painful dissection is thus avoided. The character of injuries about the articulations, many of which, particularly near the elbow, if not seen before swelling has taken place, are not recognizable by palpatation, even under ether, are very clearly diagnosed.

It is easy, with this aid, to diagnose between an enlargement of the bones, and a swelling of the soft parts in chronic diseases of the joints, also to determine if an anchylosis is bony or fibrous. The character of osseous tumors, their shape, size and the manner of attachment, are easily made out. Injuries to the spine and pelvis are well indicated. In fact, with a very ordinary apparatus, all skeletal injuries may be studied. In pulmonary disease, consolidation and cavities present distinctive appearances on the flouroscope. It is not so unusual that the shadow of a beginning infiltration will correct and support a diagnosis not clearly established by the physical signs. The writer has seen a case wherein a patient supposed to have consolidation of the upper half of the right lung only, the shadow frem a small consolidated spot in the left lung showed a beginning affection, which had escaped previous careful physical examination. The determination of calculi and the study of the solid viscera present inviting opportunities for using this most interesting addition to our armamentarium. The choice of apparatus presents many problems. The static machine has many advantages, and very good ones can now be bought for a much more reasonable price than was formerly the case. They require assistance to run, and are very easily affected by dust and dampness, and have to have very good care. There is no necessity for the very large coils. With a proper tube, a four inch coil will furnish illumination sufficient for all the ordinary work of the general practitioner. The battery and coil are less expensive than the static machine, but are subject to all the drawbacks common to batteries. Skiagraph, with its manifold applications, is within the scope of these less expensive forms of apparatus, and gives an opportunity for keeping records that are always interesting and may be very useful.

STRANGULATED HERNIA.

Unfortunately there are still scores of deaths from strangulated hernia even in the great cities where surgical skill can be obtained at once, because herniotomy is not performed at all, or only after the patient is in a hopeless condition. The delay is practically always *avoidable*, unless the physician is not called until it is too late. It is usually due to one of three reasons: 1. A wrong diagnosis; 2. the hope of reducing the hernia later on by means of taxis aided by opium, heat or cold, or position; 3. the supposition that all but omentum has been reduced. Whenever a patient complains of severe colicky pains, accompanied by nausea or vomiting, a physical examination of the inguinal, femoral and umbilical regions should be made. The patient's ignorance concerning the presence of a hernia has often cost him his life, because the physician has neglected to make the examination, depending upon the patient's statement. The diagnosis having been made, the following steps should be carried out at once, because a few hours of delay may kill the patient:

1. If the strangulation has occurred within twenty-four hours, taxis may be practiced, the Trendelenburg position being employed in inguinal or femoral hernia. Morphia used hypodermically, in a maximum dose, half an hour before beginning the manipulations is often very useful.
2. If taxis has failed in recent cases, and in all cases which have been strangulated long enough to make sloughing of the intestine probable, herniotomy should be performed just as soon as a clean surgeon can be secured.
3. In recent cases taxis may again be tried under anæsthesia before the operation is begun.
4. An attempt should be made to obtain a radical cure, if this is compatible with the safety of the patient.

If the above rules were carried out by the general practitioner, who sees these cases first, many lives that are now sacrificed would be saved and the public would soon lose its fear of this operation, which is due to the sad experience caused by late operations or septic operators.

PHYSICIAN! HEAL THYSELF.

To probably the great body of physicians, dependent on their practices, the question of their present and future livelihood is getting to be a question of more and more immediate interest. Step by step they have seen their incomes and their chances lessened by one cause or another. Still it would seem that they stand by in an attitude of almost despair not knowing what it is or just what to attempt. And worst of all, they see themselves practically barred from other walks of life when dissatisfied with the results of their own. This is a condition and not a theory.

In the light of recent events probably the remarks some months ago of Dr. Thomas S. K. Morton, of Philadelphia, would be opportune. The doctor was discussing a paper on the hospital and dispensary abuse. While deprecating this, he deemed a direct attack futile. But he held that a condition of more general prosperity would arouse men's natural pride and practically obviate the matter. This he hoped for by such a system as would open up the use of nature's opportunities. Thus, on the one hand, the physician would find his income more certain, and on the other more avenues of employment if discontented with his own. Probably no member of the community is more dependent on general prosperity and none so quick to sense its absence as is the doctor. Now it does not require any hard delving to perceive the imprints of the late Henry George's philosophy in the above, and in fact Dr. Morton is a prominent single-taker. Whatever he may think, the physician owes it to himself, his colleagues and his family to see for himself what there is in it. And if there be, probably never has public opinion been more kindly disposed toward Mr. George and his philosophy. So if aught can be done, the time seems singularly fit. It is claimed by his followers that, no matter how limited the area of application, the benefits of the system are bound to become manifest. In the south particularly, the personal influence of the doctor is marked, and there ought not to be any great difficulty in having a trial of the system, if a concentrated and well directed effort be made. This can be done without necessarily arousing any special antagonism in either of the existing political organizations. In any event something must be done, and the above impresses us as more likely productive of positive results than any other plan so far suggested.

ECONOMY IN THE USE OF HOSPITAL SUPPLIES.

There is an important principle which has been sadly neglected in our management of public hospitals, probably because physicians and surgeons are not usually good business men and, also, because it is natural to feel that cost does not count when human health is to be considered. I refer to the principle of economy in the use of supplies.

In this the medical and surgical members of the staff are usually equally at fault, the former prescribing high-priced new remedies when others of equal or greater value could be procured at a far smaller expense. During the past few years this has usually come about in the following manner: Some very expensive new remedy is procured for the purpose of testing its value, and then unconsciously prescribed indefinitely without scientific benefit and no especial benefit to the patient, at a great and useless expense to the hospital. This fact was shown clearly in one of the large hospitals in this country, whose annual report showed that twice as much money had been spent during the year for drugs as had been spent in supplying the hospital with milk. It was all the more striking, because the institution had for its patients only women and children who would naturally be benefited far more by milk than medicine.

One cannot be present during operations, nor can one see wounds redressed in most hospitals without being impressed with the fact that a great amount of expensive material is wasted. A surgeon will, for instance, suture the entire wound with interrupted sutures of silk-worm-gut, using a strand costing one-third of a cent for each stitch, when he might easily make three stitches with one strand, or, what would be much better, he might use horse-hair for most of the superficial stitches. It is quite as excellent a suture material and costs nothing. The same is true in the use of dressings. Yards upon yards of iodoform gauze are applied to the surface of wounds, which would heal precisely as well under sterilized cotton costing twenty times less.

Every one connected with hospital work should strive to be economical.

EDUCATION IN ELECTRO-THERAPEUTICS.

Electricity has tried to do almost everything, and at the present time does the work for the kitchen girl, as well as for the manufacturers and railroad companies, thanks to the continued inventions of our scientists. In medicine, it plays a very important part; it renders assistance in every department; in many ways it accomplishes better results and often cures where medical and surgical means have failed. While the public insist on having electricity applied for the relief of their ailments, the profession often neglect to do it, because they are afraid to use it or cannot comprehend its utility.

They do not seem to realize the fact, that in the hands of an expert who understands the construction of his machine, the use of the poles and different currents, it has been made to allay pain and inflammation in almost every part of the body, to cure paralysis of every description, to do away with strictures of all sorts. to remove tumors of a certain class, and to cure a host of special diseases that it would take too long to enumerate.

Now why are not these facts more generally known and admitted among medical men? Why are electro-therapeutics looked upon with suspicion by many of the general practitioners and regarded as inefficient?

The reasons are many and obvious, but they can all be collected in a nut shell, and it is this: *general ignorance* of the methods of the application of electricity as a therapeutic agent.

1st. With the majority of doctors there is a want of preliminary education in physics, chemistry and mathematics, for one must have such knowledge in order to understand the construction of the simplest electrical machine.

2d. Such knowledge is not required on entering upon a course as a student of medicine.

3d. There is the utmost neglect among medical colleges as to the correct and thorough teaching of electro-therapeutics. There are very few medical colleges in the country where there is a chair for electro-therapeutics, and where such a course does exist, a few lectures only, are given to third or fourth year students.

4th. The ordinary doctor of the present time does not understand electricity or electro-therapeutics, and cannot manage his instruments.

5th. The enthusiast in electricity without the necessary knowledge must fail and is even dangerous, and then condems electricity instead of himself.

6th. Untold harm is done to the cause by the pretence of charlatans, who, without knowledge, advertise and make their harvest through the ever indulgent patient, who has faith and is afterward disappointed.

7th. The teaching in surgery that the knife must be used for everything, and the zeal of the young man to cut.

8th. The mercenary tendencies of some surgeons, who prefer to make $300 for a cutting operation than $10 for an electrolytic application.

9th. The pretense of some doctors who call their treatments electrolysis, when in reality they are using the knife.

10th. And last, but not least, come faulty instruments, and the sins of the manufacturer.

The intelligent use of the electro-therapeutics is just as much needed and wanted by the patient as is the electric current for our household use and public highways, and it is only a question of time when it will be peremptorily demanded.

"CHILLS AND FEVER."

These are common terms and in the estimation of the laity are frightful danger signals of disease for they are cognizant that chills are characteristic of malarial, and a more or less continued temperature of typhoid fever. "Congestive chill" is another term frequently used by the laity to whom it is as meaningless as to the physician himself. One does not hesitate to criticise the expression. But another term fully as common and misleading is that of "typhoid malaria" for which we hold the physician himself responsible. Typhoid malaria is certainly a very uncommon disease, but when it does occur the condition is doubly serious on account of the combined infection. In a series of one thousand cases of malaria and five hundred of typhoid fever that were studided in Dr. Oslers clinic there was "but one doubtful case of double infection." In spite of such statistics from so accurate an observer it is a fact beyond dispute that in some districts there are many physicians who apply the term "typhoid malaria" to the great majority of cases with which they come in contact where there is any evidence whatsoever of chills or fever. But there is no more excuse in these later years of the nineteenth century for the term and its frequency unless based upon accurate bacteriological and microscopical observations than there is for a physician to assume a look of extraordinary wisdom and tell his patient that he has "disease or disorder of the blood" without using some of the means at hand to examine that blood. The frequency of this term may be attributed to one or both of two causes: Either the diagnostician is negligent, indifferent, or unskilled in his diagnosis whether it be by symptomatic, therapeutic or microscopical tests; or on the other hand the diagnostician will quickly presume a most serious condition which if it terminate fatally will excuse him from criticism, or if going toward convalescence will crown him with honor for his extraordinary skill. Those physicians known as "fever specialists" who seek and ofetn acquire considerable local notoriety for their ability to "abort," or "break the fever" are perhaps the most likely to make this mistake in nomenclature.

YOUTH AND AGE IN MEDICINE.

At a recent meeting of the New York Academy of Medicine Dr. Osler presented a paper on "Internal Medicine as a Vocation." Amomg the many good ideas in the paper was one bearing upon the importance of a more than ordinary training for the young doctor, a training to be acquired only in first class schools, dispensaries or hospitals, and by post graduate study, without which one seldom becomes an able practitioner or a reliable consultant. He also pointed out to the older physicians the importance of remaining young, stating that it was necessary for the consultant to "walk with the boys or he would be gradually but inevitably lost." Without any doubt the youngest in medicine is the one with the poorest preparation, and the least experience, and the oldest is he who has become so calloused to his own ideas, especially if of years long gone by, that he will reject everything new or modern, whether of a questionable or most approved nature. The labor, sacrifices, and hardships of the younger men in medicine can not be disregarded. In an empirical or practical sense many of course are greatly inexperienced, but in a scientific sense this can not be said of them. Where are the dispensaries, hospitals and laboratories without their young assistants who often are great factors in thorough researches, who may record in an accurate manner numerous cases and their results, and compile statistics from which the most learned of the profession repeatedly gain information and derive conclusions most valuable. But neither should the opinions and experience of the aged be undervalued. Conan Doyle in his short story "Behind the Times" bespeaks a condition true to life when he speaks of young physicians so prone to criticise their seniors whos services however they eagerly seek during the hours of their own afflictions. The suggestion naturally follows that it is well for the youth to profit by the experience and skill of the aged, and for the aged to entertain a kindly feeling towards the association and study of the youth. Such a spirit will inspire wisdom and harmony in the profession, and a respect from the masses which might otherwise be lost.

TYPHOID FEVER AND MILK SUPPLY.

The recent epidemic of typhoid fever in Patterson, N. J., and the discovery of its cause in a distant dairy, suggests some practical lessons which it is well to emphasize.

An increase in the number of typhoid cases reported and its presence in a public institution attracted the attention of the local board of health. Inquiry into the water supply showed it to be above suspicion. The milk supply was found to come from a dairy in a distant county. The assistance of the State Board of Health was invoked, and an investigation of the dairy demonstrated the following facts: There were three cases of typhoid fever in the dairyman's family and further it was found that the privy of the place discharged into a stream. the water of which was used in cooling the cans of milk. In all other respects there were no fault to be found with the collecting or the handling of the milk. The farms contributing to this dairy were also examined and found in a satisfactory condition. The method of cooling the milk was to fill a large tank with water from the stream; in this the uncovered cans of milk were submerged nearly to their tops. It is easy to understand how the water from the tank would be splashed into the milk when the cans were put in or removed. Furthermore in other places to which this milk was shipped, many cases of typhoid developed among the patrons of this dairy. It is hardly necessary to deduce the great importance of reporting cases of typhoid fever to the local health boards, and also the necessity of great vigilance on the part of health officers in investigating the origin of all such cases. More than this we should learn the need of efficient inspection by a central authority, such as a State Board of Health, of all dairies and milk farms. For this purpose, general legislation is necessary, and such legislation has always been opposed by the dairy interests. Surely the monetary loss that has befallen the farmers of Sussex Co., N. J., should teach them the importance of such inspection to preserve themselves and their business, if not their patrons from their own ignorance of sanitary laws.

MEDICAL WATERS.

There are many medicinal springs in the world. People flock to them annually, spend months of time and mints of money at these resorts.

Among the European aristocracy the principal business of the family physician seems to be to send his patients to one of these springs, or baths, as they are called in Europe. Now we may rest assured that these people, especially ladies, do not visit these baths so much for the improvement of their health as for the social pleasures they enjoy at these places, while match-making mammas go for the purpose of marrying off their daughters. This brings up the question whether there is really any benefit to be derived from drinking these waters. They have been analyzed by expert chemists, and have been found to contain many substances of known therapeutical value; yet when synthetical experiments have been made to reproduce them by adding the substances discovered by the analysis to filtered or distilled water, the good results, attributed to the spring, have not followed. Now two explanations of this fact may be offered, first: There may be no such therapeutic virtue in these waters; and the supposed benefit may be due exclusively to change of scene, social enjoyments, rest from the toil of business, and release from worry of home responsibilities.

Second: the waters may be really beneficial when taken directly from the fountain because they contain some principle that cannot be imitated by combining the ingredients as discovered by the analysis, in the genuine waters. There is still great mystery in natural process, which we are very far from having mastered. This investigation of nature and her processes will form a suitable task for the coming physician.

EXAMINATION OF SPUTUM FOR TUBERCULAR BACILLI.

Every physician who has a microscope should be able to make examination of sputum for determining the presence of the bacilli of tuberculosis. The process really takes but little time if properly done. The materials necessary are thin cover glasses, and slides, a vial of Burrill's stain, some Canada balsam thinned with a little chloroform, a test tube, some watch glasses, a pair of tweezers with which to handle the cover glasses, some absolute alcohol and a solution of nitric acid of the strength of one part of the strong acid to four parts of water. I will describe in detail the different procedures necessary for making good specimens, and it will be seen that while there may be several particulars of the operation, the whole, if properly carried out, will take but a few minutes of the physician's time.

In order to do the work easily particular care should be taken in collecting the sputum. Direct the patient to take only a drop or two of that which is raised in the morning—the yellowest part. With a clean tooth-pick plaster the drop or two of the sputum on the inside of a clean one drachm vial and then carefully cork the vial. The specimen is then ready for examination.

First, wash the cover glass and wipe it until it is perfectly clean. Second, with a clean tooth-pick spread a small portion of the sputum over the cover glass, evenly and very thin, so much so that with the naked eye there appears to be scarcely anything upon the glass. This part of the process occupies only a minute or two. Lay aside the cover glass to dry in the air. Whenever there is another opportunity of attending to the matter put three or four drops of Burrill's stain into a test tube and add two or three drams of water, and hold it over an alcohol flame until it commences to boil. Then fill a watch glass nearly full of this dye and on it float the cover glass, sputum side down. Perhaps this latter manipulation will require some experience before one is certain of floating the cover glass, but a few trials will render the matter easy. This part of the process occupies only two or three minutes. The specimen should remain in the dye about forty minutes, but a longer time does not matter. It may remain twenty-four hours without harm.

When ready for further procedure put some absolute alcohol in a watch glass, then take the cover glass from the dye, wash it for a few seconds in water, then let a drop of the nitric acid solution fall on the specimen for about one second, then wash thoroughly with water, holding the cover glass with the tweezers all the time. Then examine the specimen to notice the amount of color remaining. The best specimens are nearly colorless. If there remain much color, immerse the cover glass in absolute alcohol, moving it to and fro with a slight motion, taking it out from time to time, until there remains but little red visible when held over a white ground. After drying and mounting it will be ready for examination with the microscope.

For drying it will be found convenient to take a piece of filter paper two inches square, folding it about three-fourths of an inch from one margin, at right angles so as to afford a rest for the cover glass, inclined against the edge, allowing free access of air to both sides of the glass. Of course this may be left for any convenient time for mounting.

In mounting, hold the glass with the sputum side up, and pour a drop of the balsam solution over the glass, letting it spread evenly; then incline the glass over the vial to allow any excess to flow back into the vial. Then place the glass upon the slide, gently pressing it with the tweezers, and the work is done and specimen ready for the microscope. No contrast stain need be used as the bacilli in well stained specimens can be readily seen, and after a little experience will never be mistaken for anything else. Now the whole process occupies from five to ten minutes if carried on in a methodical manner. I have had physicians to tell me that they would like to make their own examinations if they had time. Of course if one goes through the whole process at one sitting, waiting for the specimen to dry and the staining to be completed, it would take an hour at least, but in the way I have described, the busy physician need not feel the loss of time necessary for any number of such examinations as are called for in ordinary practice. Those having microscopes having no sub-stage condenser will get very good results by removing the diaphragm, thereby diffusing the light.

PURE AIR.

Pure air is just as essential to good health as pure water, about which so much has been, and is still being written. This was recognized centuries ago by physicians, as is shown by their sending certain classes of patients to the mountians for the benefit to be derived from the air. This was not only on account of the altitude and the consequent rarity of the atmosphere, but also because the mountain air is much more free from impurities than the crowded city. This latter has been more observed since the study of bacteriology has begun to occupy so much of the physician's attention. But the stumbling-block has always been the difficulty, nay the apparent impossibility, of purifying that element. But the difficulty is not so great as it seems. What renders the air impure? It is noxious vapors arising from cesspools, untrapped sewers, small lakes of filthy water standing about on the uneven surfaces of the ground, unclean stables, filthy houses crowded together in alleys, manure piles permitted to lie around instead of being removed, shallow privies which overflow when it rains, and then mingle with the dust when it is dry weather. Thus the air is filled with the bacilli of disease, and the bacteria of putrefaction and inhaled by the inhabitants. Even the germs of typhoid fever which are said to be only developed in the alimentary canal, are inhaled with this dust, which spreads over the pharynx and is washed down into the stomach with the next drink that is taken. It is not necessary to instruct the intelligent reader, physician or layman, how to obviate this evil. It is self-evident that constant vigilance in keeping houses, stables, streets and alleys clean will accomplish this, as far as we are able to do it.

BOOK REVIEWS.

THE DISEASES AND INJURIES OF THE CONJUNCTIVA, Especially the So-called Granulated Lids. By John H. Thompson, M. D., Professor of Ophthalmology and Otology, Kansas City Medical College, Kansas City, Mo. First Edition. Kansas City, Mo., Hudson Kimberly, Publishing Co., 1014 1016 Wyandotte St., 1897.

Considered from a point of usefulness we have received no book that fulfills its purpose better than the one before us. It is well understood that the ordinary physician understands very little about the ordinary diseases and injuries of the eye. Probably the most common of all diseases is granulated lids, a very important and difficult subject in ophthalmology. The author states (and we believe him after reading the book) that if the reader will study this book, chapter by chapter, beginning at the first and missing none until he has finished the disease chronic blennorrhœa, he will understand what the true "granulated lid" means, and will ever after treat the disease under that title, with more comfort to himself and advantage to his patients. The book contains 216 pages, neatly printed and nicely bound. I know of no book that will be of greater aid to the general physician than the one now under consideration.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by ALFRED LEE LOOMIS, M. D., Late Professor of Pathology and Practical Medicine in the New York University, and WM. GILMAN THOMPSON. M. D., Professor of Medicine in the New York University. To be completed in four imperial octavo volumes, containing from 900 to 1,000 pages each, fully illustrated in colors and in black. Volume III.– Diseases of the Alimentary Canal, Peritoneum Liver and Gall Bladder, Spleen, Pancreas and Thyroid Gland, Chronic Metal Poisoning, Alcoholism, Morphinism, Infectious Diseases Common to Man and Animals, Miscellaneous Subjects. For sale by Subscription. Per volume, Cloth. $5.00; Leather, $6.00: Half Morocco $7.00. Lea Brothers & Co., Publishers, Philadelphia and New York, 1898.

The third volume of this great and representative system of medicine, going rapidly and regularly on to completion, is now before us. The standard established in the first and second volumes of this system is sustained if not excelled by the present volume under consideration. In this volume we have presented to us the consideration of Diseases of the Alimentary Canal—Diseases of the Peritoneum—Diseases of the Liver and Gall Bladder—Diseases of the Spleen—Diseases of the Pancreas—Diseases of the Thyroid Gland—Chronic Metal Poisoning, Alcoholism, Morphinism. The different subjects under each of these principal divisions are assigned to authors well chosen for their ability and reputation in their particular specialties. The corps of contributors numbers eighteen of the ablest authorities of America, and their articles may be safely consulted for a complete statement of each subject in its practical bearings according to the most modern knowledge. Full therapeutic directions form a feature of the system, and engravings and plates are introduced wherever they can be of service. The volume as a whole leaves little to be desired. It is a beautiful specimen of the publisher's skill and art. We heartily commend this work as one of the utmost service not only to the general practitioner, but to the medical specialist as well.

OUTLINE OF RURAL HYGIENE. For Physicians, Students, and Sanitarians. By HARVEY B. BASHORE, M. D., Inspector for the State Board of Health of Pennsylvania. With an Appendix on The Normal Distribution of Chlorine by PROF. HERBERT E. SMITH, of Yale University. Illustrated with Twenty (20) Engravings. 5½x 8 inches. Pages vi–84. Extra Cloth. 75 cents net. The F. A. Davis & Co., Publishers, 1914-16 Cherry St., Philadelphia; 117 W. Forty-Second St., New York City, 9 Lakeside Building, 218-220 S. Clark St., Chicago, Ill.

The author states in the preface that the almost absolute neglect of sanitary rules in districts outside of the great cities, and the absence of special attention to this branch of sanitation in the larger and more elaborate treatise have called forth this work. As a usual thing small towns and villages usually pay very little attention to sanitation. Every thing seeks its own level regardless of the consequences. This little work is divided into the following five chapters with an appendix and index.

Chapter I. treats of Water-Supply; Chapter II., Waste Disposal; Chapter III., The Soil; Chapter IV., Habitation; Chapter V., Disposal of the Dead. The book is full of very valuable information and serves a most useful purpose. It contains a great many beautiful illustrations.

A TEXT BOOK OF THE DISEASES OF WOMEN. By HENRY J. GARRIGUES, A. M. M. D., Second Edition, thoroughly revised. Philadelphia: W. B. Saunders. 1898 Cloth $4.00 net, ship or ½ morocco, $5.00 net.

We had the pleasure a few years past of thoroughly reviewing the first volume of this most excellent book. In this second edition many changes and improvements are noticed—old fashioned patterns of instruments have been replaced by new ones, defective original illustrations have been artistically redrawn, and a great many new figures have been added. Aseptic surgery, which was in its infancy when the first edition was written, has been more carefully considered, still retaining its forerunner, antisepsis, which in many respects, by the nature of things, is indispensable. The whole surgical treatment of uterine Fibroid and Cancer has been rewritten and much simplified. Vaginal Section has been placed on equal terms with abdominal section.

This second edition is one of the best that the profession has today. It is equally valuable for the students and practitioners, as it is fully up to date in this great specialty. The opening chapter is devoted to the development of this female genital. The next subjects considered are the anatomy and physiology. Part IV. considers the etiology in general. Under this subject is described a great variety of illustrations in the way of handling speculems and other instruments. The next chapter is devoted to treatment in general. Everything pertaining to diseases of women is thoroughly considered. The treatment recommended for various pathological conditions is quite up to date and every physician will do well to procure a copy of this book. The illustrations and typography of the work reflect great credit on W. B. Saunders, the publisher. We heartily recommend the book to every one interested in this branch of the healing art.

THE X RAY OR PHOTOGRAPHY OF THE INVISIBLE AND ITS VALUE IN SURGERY By WILLIAM J. MORTON, M. D. New York: American Technical Book Co., 45 Versy St.

The discovery of Prof. Roentgen is unique in that it interests alike the scientific and non-scientific intelligent minds of all countries. To the world of science new problems as to the constitution of matter and the innermost secrets of electricity are suggested, while to the race at large is opened up a new means of diagnosis, and relief of suffering and disease in the field of surgery. This little work contains 196 pages and gives a very complete description of the X Ray Apparatus. At the close of the work is given many handsome cuts. The book is well gotten up.

LECTURES ON THE ACTION OF MEDICINES, course of lectures on Pharmacology and Therapeutics, delivered at St. Bartholomew's Hospital. By T. LAUDER BRUNTON, M. D., D. SC. (Edin.). L.L. D., (Hon. Aberd), F. R. S.. New York: The Macmillan Company, 1897.

Dr. Brunton needs no introduction to the profession. He has written several works and numerous articles on therapeutics and pharmacology that have caused him to be a recognized authority on the subjects named. In style he is a most interesting writer. He says:

A rational system of medicine depends first of all upon a knowledge of the disease, or pathology. Secondly, upon a knowledge of the action of the remedies that are to be employed in the disease, or pharmacology; and the knowledge of those two subjects depends upon a knowledge of the healthy structure of the body or physiology, and physiology in its turn depends upon chemistry and physics."

The most important part to understand in the practice of medicine is the action of drugs, and it is sad to relate that this important feature is the least studied and the least understood, and the physician who does devote some study to this department of medicine will always have a great advantage over the less fortunate brother who has neglected this vastly important branch of his profession. The action of individual drugs and measures have been well explained. Numerous diagrams and illustrations are given which makes the work a most lucid exposition of the subject. The work contains 666 pages, printed nicely by The Macmillan Co., and deserves the careful study of every thoughtful physician.

ELEMENTS OF LATIN. For Students of Medicine and Pharmacy. By GEO. D. CROTHERS, A. M., M. D., Teacher of Latin and Greek in the St. Joseph (Mo.) High School; Formerly Professsor of Latin and Greek in the University of Omaha; and HIRAM H. BICE. A. M., Instructor in Latin and Greek in the Boy's High School of New York City, 5½ x 7½ inches. Pages xii-242. Flexible Cloth, $1.25 net. The F. A. Davis Co.. Publishers, 1914-16 Cherry St., Philadelphia; 117 W. Forty-Second St., New York City; 9 Lakeside Building, 218-220 S. Clark St., Chicago, Ill.

This little book presents in the briefest possible compass those principles of Latin etymology and construction which are essential to an intelligent use of the terminology of pharmacy and medicine. It will be a great aid to students of medicine and pharmacy in the acquisition of a better and more serviceable knowledge of that language. Some of the special features of the work are these: 1. The use of the simple sentence exclusively in the exercises. 2. The abridged treatment of the verb. 3. The use of but one form of the subjunctive, the present, in the hortative or jussive sense. 4. No independent sets of exercises in each chapter. 5. Exercises on special subjects, as the eye, the ear. 6. A chapter on prescription writing. 7. Descriptive notes on the exercises. 8. Suggestive tables on the Greek element in medicine. 9. A list of anatomical Proper names and their origin. The work contains 242 pages and is tastefully and prettily gotten up by Leo Bro's. & Co.

EIGHTEENTH EDITION—Electro-Therapeutical Catalogue. McIntosh Battery and Optical Co., Chicago. Illinois.

This is a very neat and well illustrated catalogue.

Biographical Sketches of Hopewell Section. By Dr. J. B. Alexander. The Observer Printing House, Charlotte, N. C., 1898.

Biographical Sketches of Hopewell section by Dr. J. B. Alexander, is on our table. A careful reading enables us to say that not only the descendants of the sturdy settlers of Hopewell section. but all the lovers of liberty, learning, independence and christianity are largely in debt to Dr. Alexander for these sketches : "A labor of love." No man can read the book without having a better opinion of his race. In a terse, polished style Dr. Alexander has given a history of all the prominent pioneers of Hopewell whose leading characteristics were charity, patriotism, progressiveness and fidelity to orthodox religion. After reading these sketches no one can longer enquire for the reason why Mecklenburg surpasses all the other counties of the old North State in all that is good. The descendents of Hopewell pioneers dominate Mecklenburg. We have in these sketches a lively, succinct history of the Alexander. Caldwell, Davidson, Barry, Moore, McKoy, McNight, Blythe, Peoples, Torrance, Wilson, and Cathey families. The influences for good which have gone out from these families are incalculable and as lasting as eternity. Many of their descendants are still in Mecklenburg and many have emigrated far and wide and whether at home or abroad they have taken high position in theology, law, medicine, farming and politics. Dr. Alexander more than once asserts his faith in the genuineness of the "20" May, 1775, Declaration of Independence and gives "his reasons for the faith that is in him." His history of the wild, romantic wicked life and tragic death of Nixon Curry furnishes material for a first class novel, "Truth is stronger than fiction." We heartily commend this little book to the public and especially to the people of Mecklenburg.

The A. B. C. of Electricity. By Wm. H. Meadowcroft. New York : American Technical Book Company, 45 Versey St.

This little work contains 107 pages and gives the a b c of electricity in simple language. The electric light, telephone and storage batteries are well described. The book fills a very useful purpose.

Saw Palmetto. By Edwin M. Hale. M. D. Philadelphia : Boericke & Tafel. 1898.

The drug which forms the subject of this treatise belongs to the great family Palmaceæa, a large order, which is prominent in the whole world of plants for the grandeur and beauty attained by many of the species. This little book contains nearly 100 pages and tells all about the drug, the different diseases for which it is used, with many clinical reports. It is a neat, handy little volume.

A Modern Pathological and Therapeutical Study of Rheumatism, Gout, Rheumatoid Arthritis and allied affections. By Edward D. Gros, M. D., of the Faculty of Paris. Morrison Print, New York.

This little book contains about 47 pages, and gives a full description of the subjects named above. It gives the history, the relation between Gout and Rheumatism with the treatment. At the close of the book many good prescriptions are formulated. Much stress is laid upon the administration of the salycilates and their dangers.

Hugh Wynne, Free Quaker, Sometime Brevet Lieutenant-Colonel on the Staff of His Excellency General Washington. By Dr. S. Weir Mitchell. Two vols., 16mo. pp. 306-260. New York : The Century Company. $2.00.

These two volumes, written by the versatile Dr. S. Weir Mitchell is probably the best long story which has been written in America of Revolutionary times, and it is considered a great American novel. Dr. Mitchell has spent many years in the preparation of this work, "Hugh Wynne." He has visited and studied carefully the scenes of the story. The hero of this story comes from Philadelphia, Dr. Mitchell's own city, a son of a Philadelphia Quaker, unable to accept the quiet Quaker ideal's command. He joins the American forces and is a hard fighter against the British invader. His career as a soldier is well told —his capture at Germantown, his stay in British prison, his release and further record as a soldier. In the last part of the story he is on Washington's staff. A very pretty love story runs throughout the book. It is one of the most readable novels we have read.

Transactions of the Congress of American Physicians and Surgeons. Fourth Triennial Session held at Washington, D. C.. May 4th, 5th, and 6th , 1897. Published by the Congress.

This volume contains full proceedings of the fourth Triennial session, held at Washington. D. C., May 4, 5, and 6, 1897. The proceedings are ably edited and comprise reports, minutes and many excellent papers read at the meeting by the members of the society. The work is well illustrated and printed. It compares favorably with its predecessors and is very creditable to the Association. William H. Carmalt, M. D., of New Haven, Conn., is Secretary of the Association.

Rubaiyat of Doc Sifers. By James Whitcomb Riley, 12 mo., pp. 111. New York; The Century Company, $0.50.

This is a very natural tale in verse of an old-fashioned country doctor by Mr. Jas. Whitcomb Riley, published by the Century Company. It is very amusing from start to finish, describing the natural life of a country physician. The general features of "Doc Sifers," by illustrations, are excellent. On the back of the book is a good picture of the genial natured doctor in his rig.

Transactions of the Iowa State Medical Society, Vol. XV. Forty Sixth Annual Session. 1897.

Dr. James W. Cokenower is Secretary of this Society, and to him our thanks are tendered for this copy of transactions. Dr. J. C. Shrader, of Iowa City, is President. They are among the very best Transactions that come to our table. The articles are many, well written, and elaborately discussed. They are printed on good paper and substantially bound.

Transactions of the Forty-seventh Annual Meeting of the Illinois State Medical Society, held in East St. Louis. Ill. 1897.

These transactions comprise a volume of 400 pages full of interesting papers and discussions. Dr. J. M. G. Carter is President, and Edmund W. Weis, M. D., is Secretary. They are nicely bound, neatly printed and are a credit to the Society.

LITERARY NOTES.

Lippincott's Magazine for February, 1898.—The complete novel in the February issue of Lippincott's is "A Trooper Galahad," by Captain Charles King. It contains some close and vivid sketches of character and life at an army post in the southwest; the warlike excitement is furnished by a prolonged pursuit of a dangerous band of outlaws.

"His Last Appearance," by Jean Wright, and "A Literary Success," by Willis Irwin, are very brief tales. "Outwitting a Grizzly" is one of William Thomson's true stories of western adventure in old times—as far back as 1850.

R. G. Robinson, who is an authority on his chosen subject, supplies some information upon Florida, "The Land of the Winter Cucumber." Fakirs, adventurers, and swindlers of various kinds are the theme of Dora E. W. Spratt, in "How they Live on Nothing a Year."

"The Poetry of Shelter" is one of Dr. Charles C. Abbott's very best nature-papers. Robert Timsol, in "Back from Altruria," sets forth some of the attractions and drawbacks of Mr. Bellamy's millennial state.

Samuel M. Warns writes briefly of "Odors," William Trowbridge Larned of "Insomnia," Ellen Duvall of "Opportunity," and M. A. De Wolfe Howe of "The Other Side of Letters." The third paper of Dr. Theodore F. Wolfe's series, "Some Literary Shrines of Manhattan," deals with "The Latin Quarter and its Environs."

There are couplets by Carrie Blake Morgan and Clarence Urmy.

The Living Age issues for January show that the spirit of its founder still lives; but they show more. Their contents are gleaned from a wider field, and there is an up-to-dateness in the articles which evidence renewed life and vigor. The recent enlargement of the magazine, the addition of new departments, the widening of its scope by the introduction of translations from prominent Continental authors on topics of present interest, and the presentation of American literature, are evidences of enterprise that will be appreciated by its readers, and furnish what was needed to make The Living Age a complete compendium of the world's best current literature.

Space will allow for the enumeration of a few only of the many papers presented in the January numbers. These include "Brunetiere's Impressions of America," from the Revue des Deux Mondes; "The Unrest of the Nations," from the Spectator; "Modern Education," by Prof. J. P. Mahaffy; "Ramozan," by Hugh Clifford; "Blackwoodiana," by Herbert Maxwell; "The Dual Triple Alliance and Great Britain," by Francis de Pressense; "Heinrich Heine: A Centenary Retrospect," by Edward Dowden; "Women at Oxford and Cambridge," from the Quarterly Review; "Some Reminiscences of Thomas Henry Huxley," by St. George Mivart; "The Evolution of the Idea of God," by Andrew Lang; "Black and White Rights in Africa," by H. R. Fox Bourne; "The Farm and the City," by Walter Besant; "Scandinavian Literature," by David Anderson, and "The New Learning," by Herbert paul. Fiction includes an instalment in each number of the serial "With All Her Heart," from the French of Rene Bazin; "Loney," a touching story of self-sacrifice; "A Simple Story," by Mme. Marguerite Poradowzka, adapted for The Living Age, and several short stories. The Poetry is also worthy of mention, notably "Old Lovers," by E. Nesbit, and "In the Twilight," by E. S. S. W.

The publishers' offer of the eight numbers of 1897 containing the opening chapters of the serial "With All Her Heart," free to all new subscribers for the year 1898, still holds good. Send $6.00 to The Living Age Co., Boston, and receive the benefit of this offer. In no other way can so much reading matter of equal quality and variety be obtained.

THE JANUARY FORUM—The Forum begins the new year with an exceptionally interesting number, made up of the following articles, viz.: "Our Coast Defences," by Maj.-Gen. Nelson A. Miles; "The Future of Bimetallism," by Senator George G. Vest; "Electrical Advance in the Past Ten Years'" by Elihu Thomas; "Exports and Wages," by Jacob Schoenhof; "The Reconquest of New York by Tammany," by Simon Sterne; "The Political Outlook," by Henry Watterson; "The Incorporation of the Working-Class," by Hugh McGregor; "China, and Chinese Railway Concession," by Clarence Cary; "Is it Worth While to Take out a patent?" by Harwood Huntington; "Education in Hawaii," by Henry S. Townsend; "American Excavation at Sparta and Corinth," by J. Gennadius; and "The Relation of the Drama to Literature," by Prof. Brander Matthews.

Feeding.

We have a word to say about feeding patients, and, as our hospital ward and private practice furnish us with illustrative cases at this present time, we will ask you to accompany us on our rounds. We trust that you will pardon the didactic position we propose to assume, and at some future time we hope to hear from you on some of the points we are about to touch upon.

Here is a patient occupying the first bed in the corner of the ward. She bears the marks of a recent and severe illness. Her record, hanging over the head of the bed tells us that this is the twenty-seventh day since her illness, typhoid fever, began. Her temperature has been normal six days. Three severe intestinal hemorrhages are recorded. Her condition now is excellent. The first question she asks is "Doctor, can't I have something more to eat?" We answer not yet, and expect to continue so to answer for a fortnight longer. Her diet consists of food which makes the least possible excrement, such as broths, eggs, scraped meat and milk. We have a patient downstairs in the men's ward who, ten days after normal temperature had been reached, after a course of this fever, began to show a rise of two degrees with some tympanitic distention. A goodly supply of cakes was discovered under his pillow, and since their confiscation no trouble has arisen. Keep the diet restricted for three or four weeks after the fever subsides, and you will not regret it. We have profited by this course, or, at least, our patients have. Recently healed ulcers or membranes which have been inflamed, and whose secretions are neither abundant nor very active, do not take kindly to much work.

There are some other cases here we would like to show you, but let us confine ourselves to the subject in hand. We will visit a ruddy German in the men's ward. He smiles when we approach and we perceive the marks of a facial paralysis on the right side. He has recovered very good control of the muscles however. His history tells of a certain hemiplegia on the right side occurring shortly after the evening meal some three years ago. There is a history of rheumatism, there is valvular trouble, there is a senilis arcus, etc. He cries out for more food. He is in the hospital for pain along the sciatic nerves. His pain is nearly gone. He has less indication of trouble in his urine. His tongue has cleared up. He passes more urine. What have we done for him? Cut off his albumenoid products. He does not like that, for we are going counter to the appetite which was an element in leading him into difficulty. He is an illustration of what too much meat and too little oxygen will do. Cut down the meat products, gentlemen, in men who lead inactive lives and whose urine is loaded with the products of defective assimilation or drive them out doors. Make them drink water.

We will ask you now to see a case in private practice. This gentleman is well advanced in years. He insists at keeping at his active work, although his back is bending under the burden. He has passed large quantities of urine for some years. This urine has contained much sugar. The trouble began when the institution over which he presides was financially embarrassed. This patient is a lover of generous diet, of the aftermath of the meal particularly, dessert he calls it. We have had much trouble with him on this subject, and although we have gained a point or two, he, in a measure, still follows out his natural desires. We cut all the starch and sugar out of his dietary for a time, but found he was failing. We allowed resumption, but in much smaller quantity, and with the substitution of fruit for his rich desserts. We have insisted upon recreation, relaxation of nerve tension and more sleep. He is going along comfortably. You see that he is bright and cheerful. We give this case to illustrate the impossibility at times of enforcing anti-diabetic diet in the aged.

The sum of the whole subject that we wish to insist on is in feeding strike a balance between supply and loss. Keep watch of the urinary and intestinal canals for an index of how the work is accomplished. Apply the tests which the present day affords. Do the work scientifically, and not empirically. Or, in other words, modern medicine opens up a very direct avenue to the physician in the alimentation of his patients. Read the sign posts.

J. W. R.

Static Electricity in Gout and the Uric-acid Diathesis.

Dr. Robert Newman (Med. Record) says that electricity is superior to all medicines and mineral waters in the treatment of gout—hereditary or acquired—and of the uric acid diathesis. He himself had suffered most excruciatingly for twenty years with inherited gout; at times he could not move at all, or only on crutches, "in agonies." The prognosis given by one of the most prominent New York professors was very unfavorable. At last he could take no more medicine, he grew very weak, and the physicians who saw him did not expect him to live; in fact, he was once declared dead. Seeing his low state, some physician friends ordered whiskey and beef-juice, which benefited him markedly and pulled him through the danger period. But he remained in a low state, crippled, and moved about on crutches most of the time. In 1893 he was advised to try static electricity, and since then he has been practically well and comfortable. The gout is not eradicated, but all acute attacks have been warded off by the timely use of the static machine. The action of static electricity is summarized as follows:

1. Static electricity is generally diffused in the body and penetrates deeply through tissues and joints.

2. It acts as a general tonic.

3. The breeze from the static machine allays any pain, in most instances in five minutes. In very painful affections of the joints it needs several applications before the pain and infiltration are removed; but when an attack is in progress, after three applications in a single day freedom of motion and cessation of pain should be expected.

4. Headaches and confusion of the brain and the uneasiness of the mental forces are removed by the breeze.

5. It equalizes the temperature and restores it to a normal degree, no matter if the temperature has fallen or been raised through the disease.

6. The circulation is equalized, and the icy coldness of the feet, which is such a distressing symptom in gout, is removed.

7. The animal heat is favored, the action of the skin restored, and even diaphoresis evoked.

8. It stimulates the organs to a better secretion. The liver, bowels, kidneys, etc., which were sluggish in their action, will resume their normal function.

9. It favors the excretion of effete material, purifying the system of uric acid, etc.

10. It removes nervous debility.

11. There is an absorption of inflammatory products, in joints as well as of fluids, as we find in anasarca.

12. It replaces exercise and acts as passive motion.

Dr. Newman further states:

1. There is a variety of causes and symptoms of gout.

2. The diet and treatment, etc., cannot be stated as a routine for all cases alike.

3. It is wrong to treat the disease; the patient must be treated as an individual, according to indications.

4. There are some points in gout and in uric-acid diathesis which are not understood at present.

5. Hereditary gout exists, and will manifest itself in individuals, without their own fault.

6. Hereditary gout as a diathesis cannot be eradicated by any treatment, nor is it a consequence of overfeeding or the use of fermented liquors, for the reason that it has been observed in females who dieted and never drank liquors or beer.

7. Static electricity is the best treatment in hereditary gout and will prevent attacks if used judiciously at the right time, and thereby keep the patient comfortable and apparently well.

8. Static electricity and other electric currents will cure many of the other varieties of rheumatism and gout.

There are thousands of conscientious, upright, honorable pharmacists who would no more think of substituting than they would of trying to pass a counterfeit bill. Some of these are located in your city. Patronize them exclusively.

When to Call a Surgeon in Appendicitis.

Dr. Geo. W. Gray (Gaillard's Medical Journal, presents the particular conditions and circumstances, intended especially for the family physician, in which a surgeon should be summoned in consultation in appendicitis:

1. In cases of the fulminating variety of appendicitis, in which symptoms are always grave, and generally increasing in severity from hour to hour to an alarming degree, it is scarcely possible to obtain surgical aid too early in the disease. An operation may, or may not be necessary, according to the condition of the patient, but from the very nature of things, an experienced surgeon is best able to decide that point. No one would think of operating upon a person while in a state of profound collapse. Profound prostration, which differs from collapse in that the clammy sweats, cold extremities, flickering pulse and sighing respiration are lacking, may well call for an immediate operation. By speedily relieving the system of the pent up septic materials the vital powers are thus enabled to rally, and to regain their normal condition.

2. In the greater proportion of cases of appendicitis met with in ordinary practice the symptoms are moderate in severity at first, but steadily grow worse every twelve hours or so, with perhaps occasional remissions. These cases are often very deceptive. The patient does not seem to be very sick. With an occasional opiate, or perhaps without anything of the sort, he suffers little pain, and the attendants and friends are loath to believe that a serious, if not a dangerous, process is going on in the abdomen, until the vital powers are so exhausted that the patient's chances for recovery are very materially diminished. In these cases the surgeon should be called not later than the third day. Very likely the symptoms will be only of moderate severity at that time; but the consultant can form a much more correct and satisfactory idea of the character of the disease before its manifestations have reached the point of danger. He will also be better prepared to attack the case at the proper moment.

3. A patient has a moderate attack of appendicitis. He is to all appearances improving, when without any definite reason the symptoms are aggravated. He has a relapse and has to make another start in his convalescence, only to experience the same chain of events sooner or later to prevent his recovery. The patient, and oftentimes the physician, is inclined to attribute these relapses to over-exertion, an error in diet. catching cold, etc. While these factors may occasionally act as exciting causes, yet the essential feature to be borne in mind is a damaged appendix. Every exacerbation means an extension of the morbid process, and leaves the patient a little weaker and a little worse off than he was before. The time may come when he fails to rally, and he then becomes an invalid from chronic appendicitis. Sound judgment is therefore required to decide the proper period for interference. Each case must be managed according to its conditions and peculiarities. It is better to err on the side of safety.

Finally, we have the recurring cases of appendicitis to consider, which differ from the relapsing variety in the fact that patients are apparently well between the attacks. Recently a gentleman consulted the writer for the following symptoms: Five or six times during the past year after a hearty meal, he has been suddenly seized with a severe pain in the umbilical region, which gradually worked down into the vicinity of the appendix. The pain is accompanied by marked local tenderness and inability to stand erect. It lasts about three hours, but the tenderness persists for three or four days, or even longer. He is weak and exhausted for several days—much more so than would be expected from an ordinary attack of colic or indigestion.. This man is strong, robust, and is entirely well between these attacks. Is an operation necessary, and if so, when shall it be performed? The temperament of the surgeon and of the patient is a factor in deciding these questions. If the attacks are increasing in frequency or in severity, there can be little doubt as to the necessity of an operation; and the sooner it is done the safer and better for the patient. Six attacks of appendicitis in one year, even if mild, are quite sufficient to justify an operation for the removal of the exciting cause. Not a few physicians entertain the idea that there is no occasion for calling the surgeon until a tumor has formed, indicating the inflammatory process is limited in extent and has ceased spreading. That this idea is erroneous and misleading, is abundantly proven by the fact that in very many cases no tumor is ever found, and yet the convalescence dates from the moment of operation. The presence of a tumor does not of itself indicate an operation, nor does its absence preclude it. The plan of treatment is based upon other and more important factors in the condition of the patient. If he is growing steadily worse, the more rapid the progress of the symptoms, the earlier are effective measures demanded.

Resection of the Vas Deferens for Hypertrophy of the Prostate.

Erdberg reports a successful case of bilateral resection of the vas deferens for the relief of the severe urinary trouble due to hypertrophy of the prostate. In discussing the operative treatment of this disease, he points out that castration is not free from danger, and in about one-third of the cases fails to give any good results. Resection of the vas deferens is preferred to castration, on the following grounds: (Modern Medicine).

1. The former is a less serious operation, and does not necessitate the administration of an anæsthetic or prolonged rest in bed.
2. It is less likely to cause any mental depression, as the visible signs of manhood, though deprived of their function, are still retained.
3. Castration may be subsequently practised, although in the author's opinion it is not likely to do good after resection has failed. Relief is more speedily attained by castration, but this, the author holds, is no good reason why the more serious operation should be preferred to resection of the vas deferens.

The Disagreeable Local Effects of the Hypodermic Use of Permanganate of Potash in Morphine Narcosis.

It is strange that of all that has been written in regard to the antidotal effect of permanganate of potash in narcosis from opium and its alkaloids, so little mention has been made of the abscess formation resulting from its hypodermic use.

Admitting, of course, that we are justified in making use of any measure or remedy which will save life, yet any one who has treated abscesses produced by the hypodermic use of permanganate of potash must come to the conclusion that it falls far short of being an ideal antidote when used in that way.

Of course in cases seen before narcosis is so profound that the act of swallowing is not abolished, we can introduce it into the stomach with some hope of its having time to produce an antidotal effect, and I think that is the only way its discoverer originally intended it to be used, but there are cases frequently in which this method of administration is not practical.

For instance, the writer was called to see a case about six weeks ago that had been given three hypodermics of one-fourth grain each of morphine sulphate, to relieve a severe attack of neuralgia, and when I saw her some hours after, she was in a condition of profound narcosis.

We could have easily introduced the permanganate through a tube, of course, but the narcosis was so profound it seemed to me that absorption from the stomach would be so slow that the patient would succumb to the opiate before the antidote could have any effect, therefore it was given by hypodermic injection in three different points of calf of leg, and the result was recovery as far as life was concerned with as many abscesses as there had been hypodermics given, which are hardly well yet.

Now I wish we might have a thorough discussion of this matter, and experimentation along the line of obtaining a solution of the permanganate, or something else which will be less irritable to the tissues.

I am confident of the effect of the permanganate as an antidote in opium poisoning and hope we can do away with the disagreeable abscess formation after its hypodermic use. J. P. C.

Litholapaxy in the Male under Local Anesthesia.

According to J. H. Pedereen (Post-Grad.) not every case is suited to litholapaxy under merely local anesthesia. A small or even medium-sized calculus, be it hard or soft, in a not over-irritable adult bladder, without prostatic hypertrophy, is the ideal condition. In proportion as this is departed from in one or more of its factors, the operation grows in difficulty until we are, finally, met by positive contra-indications. These may be:

1. A large calculus.
2. A bladder so irritable that it will not retain a volume of fluid sufficent to make possible and safe the necessary excursions of the lithotrite during the manipulations.
3. Partially obstructive prostatic hypertrophy, making the introduction of the lithotrite—still more so of the evacuator—difficult and painful, by reason of the unavoidable pressure brought to bear upon the gland-mass.
4. A post-prostatic pouch, in which a calculus or fragments cannot easily be reached with the tip of the lithorite.
5. A badly sacculated bladder.
6. A patient so exhausted by protracted suffering that he cannot endure even that degree of discomfort and pain which cannot be avoided.

Finally, litholapaxy without general anesthesia should not be undertaken in children and very young subjects.

Treatment of Gonorrheal Ophthalmia.

Dr. Vail, in the Lancet Clinic, concludes a good article as follows:

1. The general practitioner should always warn his gonorrhea and leucorrhea patients of the danger of inoculating their eyes.

2. As the family physician is usually the first consulted, he has the golden opportunity which the first hours afford. He should seal the unaffected eye at once.

3. It is well to bear in mind that all cases of purulent ophthalmia are not gonorrheal; on the contrary, only a very small percentage are.

4. For diagnostic and scientific reasons, microscopical examination of the discharge should be made.

5. For the cornea to escape involvement is the great exception.

6. The best early treatment, in my judgment is: (*a*) Leeching; (*b*) continuous iced applications day and night; (*c*) nitrate of silver, 2 to 4 per cent. solution, applied to the everted eyelids once or twice a day; (*d*) non-irritating gentle flushings of the eye every few minutes; (*e*) canthotomy downwards and outwards to liberate the lower lid.

Tetanus.

Dr. C. S. Langworthy, Hamilton, N. Y.: "I inclose a brief report of my case of Tetanus. * * * I have had good success with Aseptolin in a few cases of tubercnlosis, and especially good success in one of septicemia. * * *

A. J. W.—Age 19 years; American. Had always been very healthy and strong. On June 26, '96, while working in a trench with another boy, was accidentally hit with a pickaxe in the gluteal region, making an ugly flesh wound. It was washed with a solution of bichloride 1 to 2,000 and packed with iodoform gauze. The wound healed rapidly and was entirely closed in ten days. July 11th, twelve months, after working all the forenoon, patient called at my office complaining of stiffness in jaws and cramps in calves of legs. The stiffness was noticed first while eating his breakfast that morning. I was called four hours later and found him with convulsions, involving muscles of legs, back, abdomen, neck and jaws. He was treated with large doses of chloral bromide and morphine until July 20th, when his temperature was 105 degrees, with convulsions very severe and frequent. I then gave him three doses of 100 m. Aseptolin at intervals of 12 hours. Six hours after this last dose temperature was 100 degrees F., convulsions about the same as before. After two days his temperature was again 105 degrees F. I then gave two doses of Aseptolin as before, with much the same result. Aseptolin discontinued again for two days, when temperature rose to 106 degrees F. Patient now had 100 m. of Aseptolin every 24 hours. Temperature reached normal in one week, convulsions subsided, and he made a rapid and complete recovery. Patient had anodynes all this time in large doses, which seemed to control convulsions to quite an extent. With these large doses I could relax him enough so that he could take liquid nourishment, never going without it for longer than 12 hours. (Gave one gr. doses of morphine hypodermically and one dram doses of chloral by rectal injections).

The Aseptolin certainly reduced the temperature in this case, and so, I think, saved this patient."

Orthoform.

Einhorn and Heinz (Munch. Med. Woch. August 24, 1897) first of all discuss the chemical constitution of cocaine and its relatives, as in this way they have been able to prepare the new local anæsthetic orthoform. This body is a white, light powder, without smell or taste. It is only partially soluble in water, but enough is brought into solution to make the fluid anæsthetic. It combines with hydrochloric acid, forming a very soluble body, but this hydrochlorate cannot always be used, as it irritates some mucous membranes, such as the conjunctiva. Anæsthesia is only induced in the places with which the orthoform comes in contact. The authors describe a case in which a 10 per cent. ointment was applied to a painful wound on the outer side of the chest. Orthoform acts as an anæsthetic wherever it comes into contact with nerves, and thus it has no effect when applied to the unborken skin. If it be applied to a burn of the third degree, the anæsthetic effect is remarkable. When compared with boracic acid it was found to be much more efficient. It always allays the pain of ulcers, whether cancerous or other. In one case as much as 50 gm. was sprinkled on a wound within a week, showing that it is quite harmless. It is strongly disinfectant, hindering decomposition and fermentation. Orthoform was also useful in ulceration of the larynx; after some of the powder was blown in the pain was relieved for 24 hours. In gastrie ulcer and carcinoma it was also of service, but much less so in chronic gastric catarrh. For eexternal use the free othoform is the best, but for internal use the soluble acid salt. Further observation is needed in regad to its action on the mucus membranes of the mouth, nose and naso-pharynx. As it is non-poisonous it can be applied to large ulcerating surfaces. Internally ½ to 1 gm of the hydrochlorate has been given several times in the day. Othoform is stable, non hygroscopic, and can be added to other remedies.

The Surgical Aspect of the Pathology of Tuberculosis of the Bones and Joints

Dr. E. H. Nichols, in the Boston Medical and Surgical Journal, says:

Many observations prove that tubercular disease of the bones and joints is caused by the tubercle bacillus.

Injuries of moderate severity favor the production of the disease.

In the bones the disease begins in the epiphysis, and is more extensive than appears on gross examination. Hence in operations for removal of the disease a considerable margin of apparently healthy bone must be removed.

Tuberculosis of the joints is generally, if not always, secondary to tubercular disease in the epiphysis of an adjacent bone.

Abscess formation is due to extension of the tubercular process to the soft parts. The contents and wall of the tubercular abscess are different from those of infectious abscesses. Partial removal of the abscess wall is harmful.

Repair is caused by the formation of fibrous tissue, which replaces and partly encapsulates the tubercular tissue. Repair may be incomplete. Fibrous tissue may produce fibrous anchylosis, or the tissue may become ossified and lead to bony anchylosis.

Paraplegia in Pott's disease is rarely due to direct bony pressure. Usually the pressure is caused by tubercular peripachymeningitis. Rarely the pressure causes degeneration of the cord.

A Clinical Report on Lysidine as a Uric Acid Solvent.

Dr. O. D. J. Hughes, says that the ever present demand for uric acid solvent that may be relied upon to act promptly and without unpleasant accompanying effects offers a reason for the following brief report upon Lysidine (Ethylene-ethenyldiamine.) This substance, which is strongly alkaline in reaction, is dispensed in uniform fifty per cent. solution and is readily miscible with water. It has been shown to possess five times the power of Piperazine as a uric acid solvent and does not irritate either stomach or kidney. It increases the elimination of uric acid—not by increasing its production in the organism, but by increasing the solvent power of the blood. It also has a well marked diuretic action, thus further favoring the elimination of nitrogen.

I have employed it with very excellent results in uric acid irritation, in gout, and for the relief of renal colic.

Much depends upon the dose and method of administration. It should be well diluted with water, and the water used should not hold any appreciable amount of salt, especially those of sodium, calcium or potash. Where the drug has temporarily failed to give good results when well water or that taken from the tap has been used, pure spring water gives satisfactory results. A good lithia water or any of the ordinary aerated waters may be used as a diluents. Again, I am convinced that instead of small doses at the begining, gradually increased, the larger doses should be first employed, reducing the amount as the symptoms improve. Two or three drachms in a pint of water during the day will give good results. In some cases the drugs must be pushed to double this amount. In renal colic, during the severity of the attack, gr. 180-200 in a tumbler of water will relieve the pain more thoroughly and in less time than morphine.

My conclusions—based upon a number of cases—are that Lysidine is a valuable agent and fulfills the claims made for it by Grawitz, Goodbody and others.

Laparotomy in General Peritonitis, Following Perforation Due to Typhoid Fever.

Drs. Suesselewitsh and Vanach in the Archives of Surgery gives their conclusions arrived at from observations on sixty-five cases, as follows:

1. Laparotomy is unquestionably indicated in all cases of general peritonitis, following a perforation in the course to typhoid fever.

2. In recent cases—when no more than twenty-four hours have elapsed from the moment of perforation—the operation should be done immediately if there is hope that the patient will survive the operation.

3. In older cases operate only when there is general peritonitis. In circumscribed peritonitis it is advisable to wait.

4. General deep anesthesia is contraindicated; it is best to inject locally, where the incision is to be made, a 2 per cent. solution of cocain and to use a small quantity of chloroform, sufficient to control the action of the abdominal walls.

5. Contrary to the opinion of other authors, washing of the peritoneal cavity is not contraindicated. The liquid to be employed is of no importance, as it acts

mechanically by washing away the pus, and stimulates the patient by the virtue of its temperature.

6. Intestinal adhesions should not be torn, except in order to empty an encysted abscess, and then it must be done with great care and gentleness.

7. The perforation should be found and sutured at once by one method or another.

8. Where there is a great number of ulcerations, the intestine should be resected. In one case Vanach resected twelve inches of the small intestine.

Tympanites.

Dr. Miles F. Porter in the Medical News draws attention to the danger of distension and the probable fatal termination by heart failure. He speaks of the causes as being either obstruction to the passage of gas or the undue formation of gas. The obstruction may be due to paresis or physical causes, as bands, etc. He quotes Sweetnam, and gives him credit for priority in recommending postural treatment of tympany.

He arrives at the following conclusions:

1. That intra-intestinal tympany in and of itself often kills patients suffering from abdominal and pelvic disease, and that it may do so in cases which are neither pelvic nor abdominal.

2. That tympany occurring in the course of any serious illness should be consider a symptom of ill omen, and that measures for its relief should promply be instituted.

3, Failing to obtain relief by cathartics, posture, enemata, and the use of the rectal tube, celiotomy and incision of the gut should be promptly done.

4. In cases of general peritonitis and bowels obstruction, no trial should be made of other methods, but celiotomy and incision of the gut should be performed as soon as the diagnosis is made.

5. Puncture of the bowels should be carried out only in cases in which the patient is *in extremis*, and then only in cases such as typhoid fever without perforation, pneumonia, etc., which present no other cause for celiotomy than the tympany itself.

Treatment of Psoriasis.

C. Herxheimer is of opinion that the reason so few cases of psoriasis yield successfully to arsenic treatment is because this drug is used in too small doses and is not kept up long enough. (Birmingham Med. Journal). The author therefore made use of the method introduced by Baccelli, and injected large doses of arsenic directly into the veins. The bend of the elbow or knee was the seat usually chosen, and after disinfection an Esmarch's band was used above the location. A one-centimeter "pravat-spritze" was used, and the needle was directed into the vein which lay near the surface. The dose at first was 0.001 acid arsenic, and every day the dose was increased about 0.001, until a dose of fifteen milligrammes was reached, which was the highest given.

In twenty-five cases treated in this way ten were cured, six did not wait for the completion of the treatment, but were better, and nine were still under treatment and showed improvement. The healing commenced at the beginning of the second week, The duration of the cure averaged about forty-eight days, whereas in the usual treatment by the mouth improvement did not take place until eight weeks had elapsed. On two occasions thrombosis had occurred, which was due to faulty technique. Pain was insignificant. In one patient a furuncle appeared, but this soon disappeared. In another case arsenic-zoster and diarrhea occurred. Whether the cases remained free from relapses could not yet be determined. The author pleads for an intermittent treatment for psoriasis with arsenic as is given in syphilis.

Reviews.

It is remarkable how large the number of new books continues. These volumes are of great interest from the fact that they keep us in touch with the workers, the students, the investigators of the day, the perfectors of one's special line of work. To the practical man, one of limited means, a guide in the selection of books is very needful. Such a guide is the reviewer, or ought to be. He is supposed to point out the good qualities and expose the failings. He is supposed to tell us whether the author has kept to his text, whether he is the expounder of theories or facts, and whether it is worth while to spend time in examining his work, and whether it will be useful.

Does the reviewer of the day do this? Is it to be supposed that in an article of a few lines an adequate exposition or criticism of what may have been a life work can be contained? Would any one of us be satisfied to invest in a piece of property on such short, common-place testimony as we find in the ordinary review? I trow not. And, gentle reader, you do not think so either.

Take up the average review and examine it. What does it amount to? First (and I fear it is too often the main object) is the bookseller's notice. This is perfectly proper, but we want more. Then follows a few lines that often would apply to any old thing. What is the consequence? The ordinary reader does not read reviews. They fail to supply the want of the reader.

This expression occurs in a late review: "One scarcely knows how best to approve without flattery." What an expression to use with regard to a work which reflects the experience, teaching and diagnostic acumen of one of our ablest men. Flatter such a man! Bless my soul, if you did attempt it you could not accomplish it, for his work is *facile princeps!* No, Mr. Reviewer, say all the good things you can about the work of such a man and about the man himself, for you know that the word flattery cannot apply, and you know no man will make a mistake to buy the work, read the work and apply its teachings after he has read it.

As to the short-comings of a book, they ought to be stated. False teaching ought to be pointed out or discussed so thoroughly that it would not be followed.

Come, Mr. Reviewer, spend more time at your work! Be the helpmate to us that you ought to be. Praise where praise is due, and use the weapon of criticism with kindly spirit when it is deserved, *but do not lead us astray*, and make us suspicious that your motives are venal, or that you have not looked over the work. R. L. P.

The Difficulties of the General Practitioner.

In a recent issue of the London Lancet the editor writes:

We have, during the year, given a larger amount of space than usual to the discussion of the many subjects of vital interest which fall under the head of medical politics. We hope that in the near future practical developments will follow upon the sense now deep seated in the medical profession that there are crooked matters that could be set straight by resolution, by, perhaps, a little self-sacrifice, and above all, by union. The general practitioner has, as a whole class, fallen, we regret to think, upon ill times. His work has grown no lighter, his responsibilities are no less exacting, but in many directions his remuneration has decreased. He is suffering in part from the overcrowding of the profession, in part from the competition of unqualified persons and lay associations, in part from the faulty administration of certain great medical charities, and in part from the rampant prevalence of quackery, which enjoys in this era of our civilization an immunity that is as perilous as it is astounding. Quacks there have ever been and quacks there will ever be; but never, we believe, in the history of the world have the mendacious statements of the charlatan enjoyed such credit or his worthless wares been bought so cheerfully and so universally at such exorbitant prices as now at the end of the nineteenth century.

That we shall attempt to point out the paths leading to a better condition of things, as we have attempted in the past, goes without saying, but it is equally certain that nothing will be done unless the profession unites to work out its own salvation. We have placed before our readers many examples of hospital abuse. The modern developments of the out-patient department cheat the sick, cheat the honorary medical officer, cheat the general practitioner, and cheat the charitable public alike. This is the view which all medical men should keep prominently before the large public with whom they are in intimate relation. We have told and are still telling the Battle of the Clubs. The Medical Aid Association is in many places and in many of its workings a name for a scheme by which medical services are undersold to the public, who, thereby, obtain all the disadvantages which attend purchase in a shoddy market, while the advantages are reaped neither by the medical man whose position is exploited nor by the suffering poor in whose cause the association claims to work. This, again, is the view which medical men should enforce upon their numerous neighbors.

The Diagnosis of Early Pregnancy.

Dr. Gardner (Homeopathic Journal of Obstetrics). The value of the sign of "morning sickness" is very much overestimated. A typical morning sickness is not infrequently met with in patients who have a uterine displacement or an extensive salpingitis. The breast signs are most constant and most reliable in those pregnant for the first time. The enlargement of the papillæ comes the earliest, and is the most constant and easily recognized. Enlargement and tenderness on pressure are very early and constant signs. The fat breast is large, soft, and, even in primipara, is more or less pendulous, while the breast of early pregnancy is firm and stands out from the chest wall.

By the end of the third month milk is present in nearly all cases. Pigmentation of the areola never entirely disappears and thus this sign is of very little value after the first pregnancy. The blue discoloration of the vagina is of great value in the later stages of gestation. In seventy-five cases under three months it could be detected fifteen times.

The velvety feel due to the superficial softening of the vaginal portion of the cervix was found in all of the seventy-five cases. A similar condition is, however, found in some of the inflammatory conditions of the uterus. In a very large percentage the uterus was found tilted forward. The most important of all signs in the early months, and one without which he does not make a diagnosis, is the cystic feel of the uterus. Practically a cystic uterus is always a pregnant uterus. There is, however, one exception to this statement—a cystic fibroid will give nearly the same sensation as a pregnant uterus. The variety of the cystic fibroid, its comparatively slow growth, and the absence of other signs of pregnancy make the diagnosis clear.

Infantile Stools and their Significance.

Charles Douglas, M. D., contributes a valuable paper with this title to the Physician and Surgeon. He says:

Green Stools—what are they? It is difficult to fully realize all the disturbing factors which result in this colored stool. As two healthy parties, mother and child, always contribute to and produce a healthy yellow stool, we must have an unhealthy influence in either one or other to produce a different result. Writers on this subject explain this green color by attributing it to the presence of chromogenic bacteria; but this is unsatisfactory, and does not explain the cause of disturbance. When we look at the great varieties of green stools, from the occasional one produced by the milk of a tired or irritated mother, in a very healthy child, to the greenish gray, foul, pasty one of the extremely rachitic child, we realize that numerous factors must intervene to produce all these shades in color, consistence and odor. Certain it is that the character of the bacteria is quickly changed, or their lives and number are rapidly reduced either by a diet suitable to the child, or healthy gastric juices in the child.

When we consider the different types of green stool in color, odor, and consistence—from the light green to the deep chrome hue; from the inodorous to the extremely foul and rotten; and from the thick, slimy, to the extremely liquid—we cannot but believe that very different conditions must be present in the alimentary canal to explain these results, aside from bacteria.

The deep chrome hue as against the lighter color in the same consistence of stool would indicate a greater food disturbance if the color is due to bile. In other words, there would be a less effort at digestion.

The extremely foul stool would show a marked albuminous decomposition, while the absence of odor would indicate healthy digestion, and where the stools were very liquid, extreme vermicular activity.

The very slimy stool would indicate a catarrhal condition, more or less severe and extensive, and generally mild in character, when compared with the profuse, watery, exosmotic discharges caused by an acute milk infection.

Whatever the character of the green stool may be, we see that it indicates an unhealthy condition in the digestive process, and it should receive our careful attention. The green color without other change shows the unsuitable dietary and nature's rapid efforts to remove it, quickly carrying the bile and imperfectly digested food out, thus checking nutrition and wasting secretions. The foul stools show the putrefactive process consuming the dietary, thus not only robbing the body of dietetic support but often loading the blood with these putrefactive germs through their absorption. The slimy and thin, watery stools by reflex action not only check digestion, but also consume the albumin and fibrin of the blood itself in direct proportion with their size and frequency.

From these facts we realize that green stools are errors or due to errors; that they always interfere with perfect alimentation; that they may load the blood with imperfectly prepared digestive products and putrefactive or poisonous results; and also by their frequency and size, more or less rapidly replete the blood current.

The Doctor further says:

1. Green stools are never healthy stools.
2. They show imperfect digestion always.
3. In direct proportion with their presence is the damage and danger to the child.
4. These stools render children more susceptible to acute gastro-enteritis in hot weather.
5. The high infantile summer mortality follows children suffering from this colored stool.
6. Through unhealthy nutrition the blood is poisoned and the various tissues improperly nourished.
7. The excreting organs, particularly the kidneys and liver, are frequently damaged by the extraordinary duties imposed upon them in eliminating these poisonous results from the blood.
8. This continued irriation and innutrition favors the development of inherited diathesis and acquired cachexias.
9. No child is free from complications dangerous to life, or from developmental errors, who suffers from frequently recurring green-shaded stools, particularly the very liquid and foul smelling ones.

The Menopause and Senile Involution of Uterus.

Parviainen has issued a very complete monograph on senile degeneration of the uterus. Many of the histological changes are clearly morbid, and not always can disease be distinguished from natural atrophy. It is important to those who would lay stress on the microscope as a clinical agent to remember that Parviainen finds that while the cilia of the uterine and cervical epithelium grow scanty in sickly women near the menopause they sometimes remain perfect in women over sixty where the uterine muscular tissue has undergone degenerative changes perceptible to the naked eye. This involution of the muscle is not easy to explain even after careful research. and Parviainen finds no evidence whatever that changes in the blood vessels play the first, or most prominent part in bringing on active atrophy. Great care has been taken to distinguish between old women dead from general complaints, like typhoid fever, and those dead from local maladies least likely to affect the genito-urinary tract. Menopause histories have been carefully collected from 250 cases. Of early menopauses Parviainen found two in women aged 37, two where the age was 38, three at 39, twelve at 40, three at 41, eleven at 42, six at 43, and eight at 44. Then follow high numbers, as might be expected, falling rapidly after 51. The change of life came on in three patients at 54, and in the same number at 55, and in one at 56, and the same number in patients of the age of 57, 58, and 59 respectively.

What is Vitality?

Mr. Herbert Spencer's definition of the nature of life implies, as is well known, a continuous adjustment of internal to external relations. (London Lancet, January 6, 1898). In other words, vitality is preserved by interactions going on between the constituents of the protoplasm. On the face of it this view must be very materially modified in the light of some exceedingly interesting experiments recently brought to the notice of the Royal Society by Mr. Horace Brown, whose classic researches on that interesting class of ferments, the enzymes, are well known. He has found that by submitting seeds to the very low temperature of evaporating liquid air—i. e., from 183 degrees C. to 192 degrees C., for 110 consecutive hours, their power of germinating is not in any way impaired. Since the above temperature is considerably below that at which ordinary chemical reactions take place the result is very remarkable, and would appear to show that although a state of complete chemical inertness in protoplasm may be established it does not necessarily lead to a destruction of its potential activity. Is the protoplasm thus brought to a "resting" condition to burst into activity on restoring favorable conditions? If so, what becomes of life during this "rest"? These observations are also of interest in connexion with the suggestion of Lord Kelvin that the origin of life as we know it may have been extra-terrestrial, and due to the "moss-grown fragments from the ruins of another world" which reached the earth as meteorites. That such fragments might circulate in the intense cold of space for a perfectly indefinite period without prejudice to their freight of seeds or spores is, Mr. Horace Brown remarks, almost certain from the facts we know about the maintenance of life by "resting" protoplasm; the difficulties in the way of accepting such a hypothesis certainly do not lie in this direction. Here is an interesting problem for biologists, and the development of the question will be followed with the keenest interest.

Narcotic Inebriety in America.

Dr. J. B. Mattison has a good article in the Medical-Legal Journal on this subject. He says:

"The point of greatest import in this paper is the fact that the ebb of this toxic tide has begun. Various causes have tended to this glad end. Concerning cocaine, the most potent has been an appreciation by the profession, of the mistaken statements of some writers as to its specific value in certain ills, and its non-noxious power in all, and a realization of the risk attending its incautious use.

"That the warrantless, pernicious assertion of Flieschel, Hammond and Bosworth had much to do with the rise and growth of cocaine inebriety in this country, is beyond question. The full measure of that harm can never be known, and we may well felicitate ourselves that this dreadful disease is, increasingly, a thing of the past.

"Regarding chloral inebriety, the larger use of less snareful hypnotics—notable trional—has led most of all to its decline.

"Respecting opium inebriety, three causes have conduced to its lessened growth. First, morphia, as an anodyne, has been largely supplanted by codine, which, while effective as a pain reliever, lacks almost wholly that subtle power which makes morphia so likely to enslave. Second, by the coal tar products—notably, phenacetine—the value of which, in this regard, is beyond dispute; and by the use of electricity. Touching the latter, we wish to lay special stress on the galvanic current as a power against pain, and express a belief that it is not appreciated and made use of by medical men in general to an extent at all equal to what its merit deserves. Third, the use of morphin, subcutaneously, is much less common these later years. Syringes once ready are now rusty. The import of this change for the better will best be appreciated by realizing the fact that this mode of morphia medication is the most riskful as regards inebriety. Facile, but fatal, often may truly be said of it. In this reform—much needed and most hopeful—the fathers of our fraternity have led. Out of their experience, more thoughtful or most unhappy, has been evolved a betterment along this line to the furtherance of which junior members of the profession may well attend."

The Rivals of the Physician in Practice.

Dr. R. W. Wilcox brought out some very practical points in the paper he read at the New York State Medical Society Jan. 26, 1898. He said:

Considering the conditions under which medical men work, it is not surprising that they have so much to complain of. It is hardly realized how many hangers-on and camp-followers there are. This is probably due to what is said to be the American love of a title; there are many who want to be called "Doctor," and if they cannot reach that height, some of them are willing to be dubbed "Doc." All medical men are familiar with the "Doc" of the corner drug store—the prescribing apothecary who repeats prescriptions without the physician's permission, who gives to somebody else a prescription originally given to a different person, who substitutes preparations of his own manufacture for those ordered in a prescription. It seems as though such "physicians" will continue to increase in number to the end of time. There seems no way to confine the labors of these people to the legitimate business of compounding physician's prescriptions. Then, again, there is the instrument-maker, but he has learned that a truss will not accomplish much for the patient when placed over a bubo or an undescended testicle. Of late years the physician has had to contend with the trained nurse, who prescribes for the members of the family of her patient, and the massage operators and bath attendants, who are always ready to give advice. Curiously enough, the veterinary surgeon is the only individual who will not prescribe for a human being, in spite of the fact that he is much better able to do so than many who do. The reason of all this is found in the fact that the physician works in an altruistic way, thinking only of the good of the people and not recognizing the commercial side of his affairs.

The Diet of Nursing Mothers.

Vallin (Health Journal) relates a case in which alcoholic indulgence on the part of a wet-nurse was productive of very serious symptoms in an infant. It became restless and irritable, and the restlessness could only be controlled by allowing it to take more milk from the breast. There were alternate sleeplessness and undue drowsiness, and at last alarming twitchings of the arms and legs. In one case a child was well on other days, but had various nervous symptoms of this nature every Monday and Thursday. This was found to be due to the nurse having her hours off duty on Sundays and Wednesdays, and to her spending the time in drinking freely. Nursing mothers should live well, but in most cases stimulants are unnecessary, if not harmful. If a mother has not enough milk she should take a glass of cow's milk a short time before suckling, and she should take at meals a sufficiency of nourishing food such as butcher meat and oatmeal porridge.

The Relationship Existing between the Diseases of the Ear and Eye.

Laurens (Journal Eye, Ear and Throat Diseases) has made an exhaustive research upon the relationship existing between the diseases of the ear and eye. His conclusions, which were based upon the study of a case of asthenopia associated with otitis media and one of nystagmus consecutive to catheterization of the auditory canal, were as follows:

1. There exists between the organ of hearing and that of sight anatomical and physiological conditions which explain the pathological relationship between these two organs. The anatomical relationships are established: (*a*) By the intermediation of the brain (aural abscess causing cerebral abscess, inducing optic neuritis). (*b*) By the trigeminus and the anastomosis of this nerve with the facial. (Thus syringing of the canal may produce blepharopasm by excitation of the auriculo temporal nerve branch which anastomoses with the facial nerve supply of the lids.) (*c*) By the connection with the motor nuclei (ocular disorders of reflex origin appearing in the course of aural affections without cerebral complications). The physiological relationships explain themselves: (*a*) By the function of the trigeminus (experimental researches). (*b*) By the physiology of the

semi-circular canals. (*c*) By the phenomenon of colored audition.

2. The ocular disorders observed in diseases of the ear are very numerous; the most frequent, however, are nystagmus and neuritis. Myosis, iritis, ocular palsies, blepharospasm, disturbances of accommodation, keratitis and lesions of the fundus may also be met with.

3. These different ocular conditions may be originated by diseases of different segments of the ear, particularly, however, by those of the external auditory canal, by suppurating otitis media, either complicated or not, by mastoiditis, meningitis, cerebral abscess or thrombosis of the sinus.

4. They are due to (*a*) either an indirect propagation, by the intermediation of the brain or its membranes, or (*b*) to nervous influences (reflex disturbances) or to vascular disturbances (infection).

5. They are not constant in every aural affection, even when serious or complicated, but when they exist in these cases they are of great importance from a diagnostic standpoint, and indicate the necessity of surgical interference.

The Treatment of Idiopathic Ulcers of the Cornea in Children.

Griffith (Treatment, Dec. 9th, 1897). Such ulcers are most common in children of the lower classes. Their cause is to be found in uncleanliness, bad hygiene and defective diet, especially lack of nitrogenous foods. Griffith considers the majority of such ulcers of cornea to come under one of three heads:

(*a*) Symmetrical central ulcers.

(*b*) Phlyetenular ulcers.

(*c*) Symmetrical multiple vascular or "strumous" ulcers.

In Class A the treatment is chiefly constitutional. "Diminish the carbo-hydrate food; increase the nitrogenous." The child must have fresh meat every day with a vegetable diet. Cod liver oil and steel wine are useful adjuncts. Iron he considers useless, except when given after a meat meal. Locally an antiseptic lotion, such as boric acid, and the instillation of eserine.

In Class B the important treatment is likewise wholesome dieting and tonics. Locally, calomel in powder as an ointment, or yellow oxide of mercury ointment. The instillation of atropia and cocaine. In some varieties the use of the galvano cautery causes rapid healing of the ulcers.

Class C calls for the same general treatment except that the local measures are more availing. Ointment of yellow oxide, atropia and cocaine is most times very effective. If the eye is intolerant of the mercurial, leave it out until the symptoms are subsiding and instead combine boracic acid. If the improvement does not take place after two or three weeks of treatment, then either cauterize the ulcers or adopt the plan of Argyle Robertson of applying pure nitrate of silver stick to outside of lids or painting conjunctiva of everted lid with (grs. X to oz.) silver nitrate solution. Both methods have been found very serviceable. The latter should only be adopted when the ulcers are of long standing.

A Unique Case of Complete Removal of the Stomach---Successful Œsophago Enterostomy---Recovery.

The Medical Record publishes the history of this case, which has naturally excited much interest, the lay press having published sensational accounts of the operation, which was performed by Carl Schlatter, M. D., Privat-Docent at the University of Zurich, and Associate-Surgeon to the Surgical Clinic.

Edmund Charles Wendt, M. D., of New York, who was in Zurich and examined the patient after the operation, has contributed valuable notes of the case as follows:

"While it would be manifestly unfair to indulge in sweeping generalizations on the strength of this single case, so boldy rescued and ably described by Dr. Schlatter, it seems at least justifiable to formulate the following conclusions:

"1. The human stomach is not a vital organ.

"2. The digestive capacity of the human stomach has been considerably over-rated.

"3. The fluids and solids constituting an ordinary mixed diet are capable of complete digestion and assimilation without the aid of the human stomach.

"4. A gain in the weight of the body may take place in spite of the total absence of gastric activity.

"5. Typical vomiting may oocur without a stomach.

"6. The general health of a person need not immediately deteriorate on account of removal of the stomach.

"7. The most important office of the human stomach is to act as a reservoir for the reception, preliminary preparation, and propulsion of food and fluids. It also fulfils a useful purpose in regulating the temperature of swallowed solids and liquids.

"8. The chemical functions of the human stomach may be completely and satisfactorily performed by the other divisons of the alimentary canal.

"9. Gastric juice is hostile to the development of many micro-organisms.

"10. The free acid of normal gastric secretions has no power to arrest putrefactive charges in the intestinal tract. Its antiseptic and bactericide potency has been overrated."

New York County Medical Association.

The New York County Medical Association held their annual election on Monday evening, January 17th, with the following result:

President, Geo. Tucker Harrison, M. D.; Vice-President, Frederick Holme Wiggin, M. D.; Recording Secretary, Michael C. O'Brien, M. D.; Corresponding Secretary, Parker Syms, M. D.; Treasurer, John H. Hinton, M. D., Member of the Executive Committee for four years, Joseph E. Janvrin, M. D.; Member of the Executive Committee for one year, Charles Ellery Denison, M. D,

This Association has about one thousand members, and is in affiliation with the American Medical Association.

Microscopical Examination of the Conjunctival Secretions from a Clinical Standpoint.

Dr. Augieras, in the Journal of Eye, Ear and Throat Diseases, concludes a good article, with the above title, as follows:

1. Microscopic examination, after staining, of the conjunctival secretion, is useful for the diagnosis of affections of the conjunctiva and cornea.

2. The presence of microbes is the rule in conjunctivitis.

3. It is the exception in eczematous conjunctivitis.

4. In the conjunctival catarrh of the neonatus, we find most frequently cocci and diplococci, in that of the adult, notably in chronic cases and acute attacks of chronic cases, we find most often the thick double bacillus (trapus et diple).

5. Fibrinous appearance of the pus indicates an eczematous condition of the mucous membrane.

6. Eczematous secretions seem to be void of infectious qualities, and unfavorable to the development of micro-organisms. In a word, they are bactericidal.

7. Absence of microbes from the secretion, and fibrinous character of the pus, are found also in severe ulcerous kerato-conjunctivitis of eczematous nature.

8. One sees in the pus of certain cases of infectious ulcer of the cornea, small thin bacilli deeply stained by methyl violet, which are also found in the pus of certain dachro-cystites.

9. Allhough it has not been absolutely positively demonstrated that eczematous affections of the eye have an exclusively diathetic origin, it is very improbable that they have as a cause a local infection of the conjunctiva or cornea.

The most probable hypothesis is still that formulated in 1891 by Dr. Chibret.

Comprising under the name of "eczema of the conjunctiva," all the diverse affections of that membrane which are provoked or sustained by a diathetic condition of weakened nutrition, and admitting that eczema is a peripheral neurosis, resulting from an intoxication of hepatic or intestinal origin.

Infant Feeding.

Dr. L. Emmett Holt, in an article in the Archives of Pediatrics, asks this question:

Where Does the Medical Profession Stand To-day Upon the Question of Infant Feeding?

By infant feeding is meant the nourishment, during the first year, of infants who are deprived of the maternal breast.

There are three forms of infant feeding practiced to-day.

1. The exclusive use of canned condensed milk.

2. The use of cow's milk, with the addition of foods or substances which modify milk as to ease of digestibility.

3. The use of only the elements of cow's milk, with or without sterilization.

Dr. Holt says that, while there are many points still unsettled, the consensus of opinion among those best qualified to speak is in favor of the third position.

Canned foods are good for a short time, but most children who are fed continually upon such food either have or show symptoms of rickets.

In the experience of this observer there have been upwards of twenty cases of infantile scurvy, all of which occurred in children whose principal or sole diet has been commercial foods.

The article closes with a statement of several well-established points. They are:

1. That good breast milk is the best infant food.

2. That no substitute for breast milk can be trusted which does not furnish essentially the same elements, fat, sugar, proteids, etc., as breast milk.

3. That these elements are found only in the milk of other animals, cow's milk being the only one available for general use.

4. That cow's milk requires some modification before it is fed to infants.

He refers to numerous points still to be determined, among others the question of heating milk for use of infants. He does not believe that heating milk at 212 degrees for thirty to ninety minutes fits it for infantile digestion. He thinks that, for the present, heating the milk for thirty minutes at 155 degrees to 170 degrees F. is most desirable.

Coryza Apparently of Dental Origin.

Collett reports in the London Lancet an interesting case of coryza due apparently to dental irritation. The patient in question, a medical man, had suffered from presistent coryza, mainly unilateral, for three or four weeks. He consulted a colleague, who carefully examined him and was unable to find any physical cause except some stigmata on the middle turbinated bone associated with general vasomotor dilatation of the membrane. A 4 per cent. solution of cocaine was prescribed for local use, together with general treatment. The coryza, however, did not lessen, and neuralgic pain in the region of the temple, over the malar bone, and subsequently behind the right ear, supervened. He then consulted Dr. Collett, who removed the first maxillary premolar, which showed signs of chronic periodotitis. No pus was evacuated. The pain had entirely gone by the morning following the removal of the root, the coryza completely disappearing in the course of three days.

The Nutrition in Syphilis.

Dr. Herman Metall (Wien. Klin. Rundschau No. 36, 1897) contributes a brief, though instructive note on the alimentation in cases of syphilis. He calls attention to the fact that the severe injuries occasionally inflicted upon the organism by luetic disease are usually the results of factors which are connected with the constitutional state of the affected person. Among the alterations of the body, in the presence of which syphilis may assume a serious aspect even during the early stage of general eruptions, the most prominent part is played by disturbances of nutrition, such as chlorosis, scrofula, tuberculosis and the consequences of chronic alcoholism. Under these cicumstances, mercurial medication quite often advance instead of combatting the morbid process. In order not to be compelled to dispense with the beneficial influence of mercury, Metall has resorted, for several months past, to the liberal use of somatose, in the treatment of debilitated anaemic and cachectic persons, in part immediately after the appearance of the initial manifestations, and partly at the time of occurrence of the eruptions (papulo-crustaceous, ulcerative, rupia). To this invigoration, the author would especially ascribe the circumstance that in none of the cases under treatment was it found necessary to discontinue the specific medication with sublimate injections (5 per cent.) in high doses and that an indication for suspending mercurial treatment, owing to progressive degeneration of the infiltrate, did not appear in a single instance. This somatose which was given in milk was well assimilated, so that it is probable that the improvement of the general condition must in itself have contributed to a diminution in the severity of the invasion. In view of the nature of the disease it is apparent, however, that to obtain lasting results this excellent nutrient must be continued for a prolonged period.

The Cause of Ankylosis.

Dr. A. M. Phelps has reached the conclusions that (1) a normal joint will not become ankylosed by simply immobilizing it for five months; (2) motion is not necessary to preserve the normal histological character of a joint; (3) when a healthy joint becomes ankylosed, or its normal histological character changed, it is not due to prolonged rest, but to pathological causes; (4) immobilizing a joint in such a manner as to produce and continue intra-articular pressure will result in destruction of the bone and the socket against which it presses; (5) atrophy of the limb muscles will follow prolonged immobilization of a joint. The question of ankylosis is determined by the severity and duration of the inflammation, the presence of intra-articular pressure, the subsequent cicatricial contraction of soft parts around the joints, the tissues involved and the amount of destruction of bone and cartilage. Inflamed joints treated upon the plan of absolute immobilization, and the relief of intra-articular pressure, furnish by fewer cases of ankylosis, limited motion and deformity.

Proper Cardiac Stimulants in the Presence of Pericardial Effusion.

The Therapeutic Gazette suggests that cardiac stimulants are of value in cases of pericardial effusion; the question is which one to employ, and in the opinion of the writer digitalis is the least favorable. This drug greatly increases the diastole of the heart, enlarging its cavities and making it fill the pericardial sac much more completely than it does under normal circumstances. In other words digitalis, by increasing the dimensions of the heart during diastole, really adds to the difficulty of this viscus, which is already pressed upon by the effusion which is in the pericardial sac. Certainly it seems much more rational to employ in such cases not digitalis but some remedy like strychnine or strophanthus, alcohol or ammonia, which will support the heart, increase the activity of the circulation, and yet not materially alter the space which is required within the pericardial sac for normal cardiac activity.

Cause and Prevention of Enteric Fevers.

Dr. G. J. Hirth (Milwaukee Medical Journal) says:

The secretions and excretions (urine, sputum and ejecta, etc.,) of typhoid patients, even though not directly noxious to life, they should always be disinfected by carbolic (preferably) before being disposed of, the same being true of linens, bedding, feeding utensils, etc.

He further states that

1. Typhoid fever occurs through taking into the body virus, mixed in character (or if specific having widely oscillating degrees of virulency, which practically nullifies its specificity).

2. The virus or antecedent causes find access to the body always through the alimentary tract through the agency of water either directly or indirectly by drinking or eating.

3. That bad drainage, sewerage and vegetable contamination are the prime factors influencing water contamination.

4. That the portion of our large bodies of still waters (lakes), near the entrance of sewers, and our lowland rivers are so affected.

5. That water so infected or prepared for infection should never be used as a water supply unless (a) boiled or (b) filtered.

6. That when this process (sand filtration) is not practical, it should only be taken from springs, subterranean streams, clear lakes or rivers not influenced by organic contamination.

7. That the fllter having the requisite degree of practical efficiency (and the only adequate process of purification until the present) is the modern sand-bath filter, properly constructed and manipulated.

8. That all the rules of hygiene pertaining to the sick-room should be rigidly observed, and that both secretions and excretions of those ill of the disease should be rendered inert through the agency of carbolic acid.

9. That a highland farming community and rural districts are in no wise exempt from this disease, and usually serve as the starting points for cases having their origin de novo.

10. And, lastly, that even though it may be necessary to wait until the future will have become the present in order to settle the question of specificity, the factors influencing the cause and prevention will always and eternally remain the same.

The Early Diagnosis and Treatment of Extra-Uterine Pregnancy.

G. H. Balleray, M. D., (The Medical News). The points which I wish to emphasize are as follows:

1. Early ectopic pregnancy may be diagnosed before rupture has occurred, provided an opportunity to make a careful examination be afforded.

2. In the differentiation of early ectopic pregnancy from conditions which simulate it, a painstaking examination per vaginum and per rectum, under anesthesia, offers the best chance of making a correct diagnosis.

3. The use of the uterine sound as a means of diagnosis may be permissible in cases of grave doubt as to whether the pregnancy is intra- or extra-uterine; but its indiscriminate employment cannot be too strongly condemned.

4. In cases of grave doubt as to whether or not early ectopic pregnancy be present, but when the presumption is strongly in favor of its existence, exploratory abdominal section is not permissible, but imperative.

5. Abdominal possesses many advantages over vaginal section, and should, therefore, always be the operation of election in this class of cases.

6. All cases of early ectopic pregnancy, except those in which intraligamentous rupture has occurred, should be operated upon as soon as the diagnosis is made. Procrastination may mean death to the patient.

The Milk Diet in Kidney Lesions.

Dr. Ajello (The Philadelphia Medical and Surgical Reporter) does not believe that the milk diet is best for kidney lesion patients, but that, on the contrary, a "mixed" diet answers a better purpose in general. In his twenty-one cases, he noted an increase in the quantity of urine in nine that were kept on a milk diet and eleven on a mixed diet. The albumin decreased in five cases and increased (quite considerably in some) in sixteen cases kept on milk. The urates diminished in ten milk cases, a rather unfavorable phenomenon. The phosphates diminished in seven kept on milk and thirteen on mixed diet.

Nervous Dyspepsia.

Rosenheim, according to the British Medical Journal, states that in nervous dyspepsia there is an increased irritability of the stomach nerves, and especially of the sensory nerves. Whether this increased irritability is really due to a mild inflammatory process in the mucous membrane is difficult to determine. In the neurasthenic a slight degree of inflammation not recognizable by our present methods could produce morbid manifestations in the form of a dyspepsia which only an advanced gastritis would otherwise call forth. The fact that many dyspeptics are improved by dieting and other measures of value in gastritis favorsthis view. The neurasthenic develops under slight provocation mild inflammatory changes in the digestive organs, and especially in the stomach. It is important to separate hyperacidity and acid gastritis from nervous dyspepsia, and yet it is not always easy. There is undoubtedly a genuine gascritis, the chief symptom of which is an intreased production of gastric juice. Hypersecretion also occurs in unquestionable nervous dyspepsia, and hence the difficulty of determining between these two conditions. The author says that he becomes less and less inclined to look upon cases with constant hyperacidity as nervous dyspepsia. The tendency to extend the boundaries of nervous dyspepsia must be restricted. In hyperacidity of inflammatory origin Carlsbad waters in suitable doses give very good results, whereas in nervous dyspepsia they are badly borne. The author includes under the picture of nervous dyspepsia a certain degree of relaxation of the stomach walls, but this motor insufficiency varies from time to time. Where however, the motor function is considerably and persistently impaired, the disease is atony of the stomach; this may also appear as a complication of nervous dyspepsia. Verhoogen found gastric disturbances in 55 per cent. of his cases of hysteria, but among them he does not include nervous dyspepsia which is undoubtedly rare in marked hysteria. The author has himself carefully investigated fifty cases of neurasthenia and in thirty-eight dyspepsia was present and in eleven the nervous form of it. The diagnosis of this complaint must be made with care. The author concludes that (1) nervous dyspepsia is a disease by itself and chiefly a sensory neurosis; (2) the motor and secretory functions of the stomach may also be impaired in it; (3) it is not as frequent a disease as has been assumed; (4) it mostly exists along with other nervous manifestations, but it is wrong to assume that it is a symptom of neurasthenia; and (5) the symptomatic treatment of the stomach symptoms is of great value in nervous dyspepsia, but treatment directed to the general condition and to the cause is of even greater importance.

The Present Status of Vaginal Operations for Diseases of the Pelvic Organs.

Dr. Cragin presented a paper with this title at the New York State Medical Association, Jan. 26, 1898. (Medical Record.)

He raid that he thought the time had arrived for a calm consideration of the utility of vaginal operations. The objections to the vaginal operation are that it is more difficult than the abdominal operation and, in inexperienced hands is more likely to result in anal fistula. However, in properly selected cases, this operation is followed by less shock, convalescence is smoother and the mortality is less. Hernia must certainly be a very rare sequela. The question to decide now is, not what operations can be done through the vagina, but what operations are best done by that route. His own opinion was, that with the exception of cases of small ovarian tumors, if the uterus is not to be removed, the abdominal operation is preferable—in other words, except in the case of small ovarian cysts and prolapsed and diseased ovaries needing removal, unilateral disease of the appendages is best dealt with from above. He also preferred the abdominal route for cases of ectopic gestation, except when rupture has taken place some time previously and the hæmatocele has been thoroughly encapsulated. Conservative work upon the appendages is generally better done from above. The operation for vaginal fixation for posterior displacement has been nearly abandoned. In his hands the vaginal operation has proved of great service in cases of pregnancy in which the parturient canal wss obstructed by tumors. In three cases of this kind this operation has enabled him to deliver a living child. According to his experience the vaginal operation has proved a great boon in three groups of cases, viz: (1) Pus cases, in which the removal of the uterus and appendages is indicated; (2) cases in which the exudate indicates the necessity for drainage without removal of the organ; and (3) small fibro-myomata. In the matter of technique, Dr. Cragin emphasized the value of morcellation, the Miculicz drain through the vagina, and the use of ligatures. In conclusion, he expressed the belief that, by reason of the vaginal operation, surgeons are now in a much better position than formerly to treat pelvic disease.

Diphtheritic Keratitis.

Thiebaut (Journal Eye, Ear and Throat Disease) in addition to the secondary alterations to which the cornea is subject in the course of diphtheritic conjunctivitis, thinks that there may be alterations in this membrane due to ischemia or to a penetration of staphylococci and streptococci into a tissue of which the vitality is lowered by nutritive changes. In other words, that there exists a true diphtheritic keratitis essentially of bacteriological origin, which develops itself primarily in the cornea, although finally it may have a secondary dissemination. This form of keratitis may present itself under two forms, superficial and interstitial. In the superficial form the disease begins as a small white area usually on the inferior segment of the cornea, and may be readily mistaken for a phlyctenule. The interstitial variety has a very insidious origin. It also begins on the inferior segment, unusually by an intense vascularization of the neighboring conjunctiva. The cornea then bccomes clouded, and a yellowish white coloration appears near the limbus, giving the general appearance of a suppurative interstitial keratitis with hypopyon. The manner of contamination is obscure in most of the cases. In two of those reported by the author there had been no direct or indirect relationship with diphtheria elsewhere. As regards treatment, he thinks it important to protect the sound eye and to employ antiseptic measures. The galvano cautery is often of great advantage.

Intra-uterine Infection.

Dr. Durk reports a case in which a viable fetus was the subject of an infection with the staphylococcus as well as the typhoid bacillus. (Homeopathic Journal of Obstetrics.) A woman aged 20, gave birth to a well-developed fetus in the fourth week of enteric fever. The mother recovered, but the infant died in about twelve hours. At the necropsy the skin was noticed to be slightly jaundiced, the abdomen was distended, and contained 25 c.cm. of turbid fluid. The spleen and liver were enlarged. The intestinal mucous membrane was slightly injected, but there was no swelling of the lymphoid elements. Thus the exact cause of the death was not apparent to the naked eye. Cultivations were made from the liver and spleen. Two kinds of colonies appeared, the one being shown to be the typhoid bacillus and the other the staphylococcus pyogenes albus. In sections from the spleen the presence of the same two micro-organisms was demonstrated. The author then refers to recorded cases in which the transference of the infection from mother to child has been proved. In his own case two separate kinds of micro-organisms passed over from the mother to the fetus. It is known that often early in enteric fever the strepto- and the staphylococcus may be present, and under certain conditions give rise to complications. In Frænkel and Kiderlen's case no typhoid bacilli were found in the fetus but the staphylococcus aureus and albus. Although it is proved that the placenta is no insuperable barrier to micro-organisms, yet their passage through it does not always take place. The easiest explanation of this transference lies in an injury to the cells covering the fetal villi. The above case was not one of real congenital typhoid fever, but an infection of the blood with the typhoid bacillus. The penetration of the bacilli must have oecurred not immediately before birth but at some antecedent date, as the enlargement of the liver and spleen and subcapsular hemorrhage in the liver show.

Paralysis: Its Forms, Prognosis and Treatment.

At the New York State Medical Society January 26, 1898, Dr. E. D. Fisher read a paper on this subject. (Medical Record).

He said that the simplest classification is that based upon the location of the lesion causing the paralysis. There are according to this view, four forms, viz: (1) Cerebral paralysis; (2) spinal paralysis; (3) peripheral nerve paralysis; and (4) intramuscular paralysis. Cerebral paralysis is most commonly the result of meningeal or intracerebral hemorrhage, thrombosis, syphilitic endarteritis, and tumors. The distribution is characteristic, being in the majority of cases unilateral. Another marked condition is the absence of any atrophy of the muscle at the time. There is no change in the electrical reaction. The more common cases found in the second class are acute and chronic inflammations, hemorrhage, and compressions, as in cases of spinal fracture and dislocation. The special characteristics of this class are the atrophy and flaccidity of the muscles, the loss of reflexes and response to the faradic current, the reaction of degeneartion with the galvanic current in acute diseases, and decreased response to both currents in the more chronic cases. There is also an absence of sensory disturbances. Poliomyelitis and progressive muscular atrophy of the spinal type are the best examples of this class. The common causes of the third class are blood states, such as rheumatism and gout, or specific diseases such as typhoid fever, diphtheria and malaria. Additional causes are lead and mercurial poisoning and injuries to nerves. The paralysis is of the spinal type but it is usually associated with marked sensory symptoms, especially in the acute disorders. There is always great tenderness along the affected nerves, and the muscles supplied by these nerves, and the general sensation is also usually disturbed. The fourth class is also known under the name "muscular dystrophy." The cause is obscure, but apparently has its seat in some elemental developmental defect. It might with propriety be designated "hereditary progressive muscular atrophy." The paralysis is of the spinal type. The prognosis is on the whole unfavorable, for nerve cells once destroyed are not replaced. Regarding treatment Dr. Fisher said that much good could be accomplished by massage, galvanism and hydrotherapy. In poliomyelitis the paralyzed muscles should be treated by massage and electricity for at least a year or more, and apparatus employed for the exercise of the muscles. When orthopædic apparatus must be worn, it shold be very light, so as not to retard but rather to aid efforts at locomotion.

The Prone Position for Version.

Dr. Mesinga recommends the prone position for version (Homeopathic Journal of Obstetrics). The genital canal is thus in a much more favorable position; the operator has more room, his arm is prone all the time and his sense of touch and muscular feeling is much more exact than when, with the woman on her back, it is supine and some of the muscles of the forearm are twisted. The uterus is shortened and the os pressed into the pelvis; the vagina is also shortened and therefore more dilatable, so that the introduction of the hand is much facilitated. The os uteri is more easily passed, and, the back of the hand resting the whole time against the spinal column, the proper way is indicated in which to lay hold of the child's extremities. For the patient the disagreeable position across the bed is avoided. She lies at full length, with a pillow below her thorax and her head turned to one side; the operator sits comfortably on a stool by the bedside; it is an advantage for him to be ambidextrous, so that there need be no turning the bed about. Such accidents as separation of the uterus from the vagina or embolism from the introduction of air into the womb do not occur. The occupation is much less painful; the less the opposition the less the force required and the less pain, and, what is more important, the less force the more delicate the sense of touch. The passage of the hand through the vulva is the worst part, and more painful than its presence in the vagina; the dilatation of the latter tends to dilate the os, and it is seldom hard to introduce the hand into the womb; the shortening of the womb brings the parts toward the hand, which has not to explore so far, and the woman has less of the sensation of "raking out her bowels." Chloroform is not necessary, but can be replaced by an injection of morphine if desired. The perineum is constantly in sight, though it cannot invariably be saved. Mensinga has adopted this method for the past eight years, with increasing satisfaction.

Hyperpyrexia in Measles.

Dr. Allison reports a very interesting case of this character in a recent issue of the British Medical Jouanal. He says:

I was asked to see a well-nourished girl, aged fifteen months, with a history of whooping-cough during the previous five weeks. She was suffering from bronchopneumonia, the respirations being 70 and the temperature 104 deg. The face was somewhat livid, and the eyelids glued together with secretion. I ordered medicine and a hot bath, and in the evening the temperature was 102 deg. and the respiration 60.

Next day a rash was visible on the forehead at the roots of the hair; the témperature was 104.2 deg., and the respirations very shallow and rapid.

At night the nurse sent me word that the temperature was 109 deg. On arrival I learned that the child had had two slight convulsions, and had been given a hot bath. On putting my thermometer into the axilla, I found it to register 107 deg., while the nurse showed me her thermometer still registering 109 deg. This had been taken before the bath.

The patient was cyanotic, restless, and apparently unconscious. The rash had disappeared. The breathing was extremely quick for five or six respirations, and then came a long pause, followed by a struggle to get rid of the bronchial secretion, which threatened to choke her. During respiration hurried, harsh breath sounds were present over the left chest behind, while abundant moist rales were heard in addition over the right. Both sides were resonant, with the exception of a slight area of dullness at the base of the right lung.

I gave antifebrin grs. ijss by the mouth, but as anything swallowed tended to set up an attempt at whooping-cough (seemingly overshadowed by the pulmonary condition), I administered atropine hypodermically, which checked secretion and calmed and regulated the breathing. On now rubbing the body back and front with ice the temperature was brought down, but it quickly went up again to 109 deg. by the nurse's thermometer and 109.2 deg. by mine; both records being taken in the axilla. Ice was again applied to the body, and as the temperature fell the forehead was seen first to become flushed, and then the characteristic rash of measles followed, and spread slowly down the face, while the moaning of the child showed that consciousness was returning. The general condition became much easier for a time, but the breathing suddenly quickened and stopped, the rash disappeared, and the child expired.

Although high fever is not unknown in the measles of adolescence, yet a temperature of 109 deg. is rare in that disease in childhood.

What Shall the State and County do for the Consumptive?

This was the subject of a paper presented to the N. Y. State Medical Society, January 26th, 1898, by Dr. J. H. Pryor. He said:

In the State of New York 13,000 persons die of consumption every year. In Buffalo alone the annual death-rate from this disease reaches nearly 500. These figures show the frightful loss of life due to tuberculosis and the necessity for measures which reduce the death-rate. Besides those who lose their lives, many are incapacitated by this disease. The popular belief that tuberculosis is an incurable affection is incorrect. Intelligent treatment, instituted early, and proper environment, will accomplish much in cases of incipient consumption. The well-to-do victims of tuberculosis seek a change of climate, and thereby gain the best chance of recovery. The majority of the cases occur among the poor, and they are the real sufferers—struggling along until they can no longer work and then seeking relief. Special hospitals for these patients should be established in which they can have pure air, sunlight, and space for indoor exercise when advisable. Open-air life and nourishing food will be the means of cure in many cases of incipient consumption. Such a hospital should not be connected with an almshouse, as was recently attempted at Buffalo; it should be situated where the most beneficial climate can be obtained, and in this State there is none better than that of the Adirrondacks. Ill-managed charity ignores the class of cases in question, while provision has been made for poor persons suffering from other diseases. It is the duty of the State to care for poor consumptives, many of whom, sooner or later, become public charges, and it would be better to make them dependent, say, for eighteen months during the curable stage of the disease, at a probable cost of $300, and then restoring them to a condition in which they can care for themselves, than to allow them to become incurable.

Treatment of Empyema.

Dr. McKinnon (Brit. Med. Journal) in reporting four cases of empyema from pneumonia thus details its treatment:

The treatment of empyema, of whatever origin, is purely surgical. I have mentioned that many cases have been reported as cured by aspiration, and, though I have never relied upon aspiration when the fluid in the pleural cavity is purulent, I can well believe that aspiration resorted to early in the case may wholly cure. I have found this method most successful in simple effusion, and would resort to it in any suitable case of empyema. However, in my own experience, I have always made a simple incision between two ribs and introduced a fair-sized rubber-tube. I prefer not to irrigate the cavity, even though the fluid be offensive. The tube should be short and fixed securely in position. The nature of the case must determine the point at which the tube is to be inserted and what length of time it is to remain.

The empyema may be limited and the pus cavity not large. The proper point for the incision is where the needle has demonstrated that pus is present, whether that point be high or low, at the back, side, or front of the chest. It is an abscess cavity, and should get the most direct drainage possible.

The Diagnosis of Diphtheritic Anginas.

With many physicians every angina presenting Lœffler's bacillus is counted as diphtheritic and justifying the injection of serum. Numerous clinicians have protested and rightly. Normally, Lœfflers bacillus exists in the throat of certain healthy individuals; we find it in numerous anginæ, and various affections bearing no relation to diphtheria. Variot and others admit that by the side of true diphtheritic anginas, bacteriologic and clinical, there exist diphtheritic anginas which are purely bacteriologic—i. e., benign anginas, either catarrhal or with pultaceous exudate, never contagious, and perfectly curable without the use of serum, the bacillus being avirulent. The simple determination of Lœffler's bacillus is not an infallible criterion for the diagnosis of diphtheria. Determination of the virulence of the cultures by inoculation is more certain, although it requires considerable loss of time. The ultimate decision is based upou clinical analysis.

Strontium and Its Salts.*

That the profession have in strontium salts, remedies of great therapeutic value is my firm belief, and my experience with them in practice during the past two years has very materially strengthened my faith in them. It has been a surprise to me in conversation with quite a number of my colleagues, to find that they are so seldom prescribed. That they have been of such signal help to me in my professional work, and that so little has been said and written about them of late, is my only excuse for bringing the subject befose you today.

There seems to be an impression that there is more or less danger in the use of the strontium salts from their toxic effects; this is wholly an error, as has been proved by the researches of such men as Professor Germain See, Dr. Constantin Paul and Dujardin Beaumetz, who found that, in every instance where conflicting reports and toxic effects have been reported from their use, they were due to the presence of barium, which is found in the commercial product. When I have prescribed these remedies I have always used the pure salts (Paraf-Javal) or their solutions prepared by P. Chapoteaut, of Paris. At present I think strontium and its salts are unofficinal in the pharmacopœia, but nevertheless, the discovery of their therapeutical properties, and the good results in therapeia that have followed their administration, would warrant us in the belief that as they become better known and more often prescribed they will become more highly appreciated.

The salts that I have most frequently used are the bromide, iodide and lactate and I will speák of them in the above order.

Bromide of strontium is a colorless, transparent salt, occurring in hexagonal crystals. It is somewhat deliquescent. The dose is from five grains to one drachm. It is not incompatible with the bromides of the alkalies, and it is soluble in both water and alcohol; it can be administered with all the alcoholic tinctures and most fluid extracts. Its indications for use are those of bromide of potassium, and while it is a perfect substitute for the potash salt, its prolonged use even in large doses does not seem to produce the untoward results so often noticed in the use of the former salt. The gastric disturbances, the cutaneous eruptions so often noticed in the use of the potash salt, are not seen when the strontium salt is used; again, the depressing and systemic agitation from the prolonged use of the potash, I have never seen from the strontium bromide.

In cases of epilepsy and other spasmodic neuroses, where the potash salt has been given for a long time, the patient thereby becoming insusceptible to its action, the strontium salt may be substituted with safety and great advantage.

In many diseases of the stomach, the bromide salt will be found of especial benefit. In three obstinate cases of vomiting of pregnancy in which I have prescribed the drug during the past year, two received signal benefit, while in the third case it seemed to have no marked effect upon the vomiting, as the stomach would not retain the remedy; in this case it appeared to have some reflex effect upon the vomiting centre, when given in drachm doses per rectum every six hours, and it was so administered for ssveral days in connection with other treatment.

In one case of hyperæsthesia of the stomach that accompanied and followed ulceration for several weeks after I was satisfied the ulcer had healed, the neuroses promptly yielded to ten grain doses of the drug, given one-half hour before food, and there was no return of this most distressing symptom.

A patient suffering from exophthalmic goitre about a year ago, consulted a specialist in regard to a severe tinnitus aurium from which she suffered; bromide of potassium was prescribed in full doses. At first the patient seemed to get some relief from the remedy and it was continued for several months; during this time the patient developed severe mental excitement with true delusions. Suspecting the remedy it was discontinued and in a few days the mental excitement subsided with a marked increase of the tinnitus. At this time strontium bromide was substituted with full as good effect upon the symptom, and the patient has continued to take it during the past three months, with no return of the mental excitement; the delusions continue however.

We are occasionally consulted by a class of patients that are plethoric; who complain of a general feeling of lassitude, frontal headache, constipation, a disposition to sleep all the time, various skin diseases; the urine is loaded with urates and frequently the heart's action is feeble, due to commencing fatty degeneration; these patients are sometimes fat, other times lean, but are always overfed. Any or all of these symptoms may exist, but will surely be relieved by the use of bromide strontium administered before meals, accompanied by a restricted diet.

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*Alexander B. Briggs, M. D.

In other cases of digestive disorders accompanied with acid fermentations and the formation of gases of decomposition, with chronic diarrhœa, the bromide has given me excellent results.

Strontium iodide occurs in colorless, transparent, hexagonal crystals, having a bitter, saline taste, freely soluble in water and alcohol. Like the bromide salt it is incompatible with solution of the sulphates and carbonates of soda, potash and lime, but is not incompatible with other iodides.

Iodine of strontium is an excellent tonic and alterative and may with safety be prescribed in any case where the potash salt is indicated. In quite an extended use of the drug, I have never known it to induce the gastric irritation or palpitation of the heart so common in the administration of iodide of potash in full doses. Its effects in catarrhal asthma. chronic bronchitis and cardiopulmonary affections have been most satisfactory. The drug is quickly eliminated by the kidneys, the strontium seeming to supplement the action of the iodine by its own peculiar action on the functions of nutrition.

In connection with the above, I wish to report the following case:

Mr. B., age about seventy, has had a catarrhal bronchitis accompanied with asthma for the past ten or fifteen years. At the time the strontium salt was prescribed he presented the following conditions: catarrhal bronchitis of both lungs with paroxysmal attacks of asthma, bad cough with profuse expectoration, has been unable to lie in bed for over two years, body emaciated, appetite poor, urine scanty, no sugar or albumen present, marked artero-sclerosis œdema of both feet and legs; pulse one hundred to one hundred and twenty per minute, mitral insufficiency with dilatation of the heart, takes little food. For several weeks, from one to three pints of water had exuded from the feet and legs every twenty-four hours. The patient had been treated with iodide of potassium at various times, always with considerable relief, but he had been unable to continue the drug for any great length of time or in anything like the full dose on account of the gastric irritation which it produced. We began the treatment with ten grains of strontium iodide every six hours, subsequently the dose was increased to twenty grains. Within one week all the symptoms had improved. The cardiac functions were better performed, the asthmatic attacks had subsided, and within one month the patient was able to move about the house. The remedy has been continued about every other month during the year, and I have seen the patient at work in his garden within the past week.

From my observations of the action of the iodide of strontium, I am satisfied that it is safe to prescribe it as a substitute for the potassium salt, and while the dose is about the same, the remedy can be pushed to a dose far beyond the limit of safety with the potassium salt and that without fear of producing symptoms of intolerance.

Strontium lactate is a white granular powder, odorless, and has a slightly bitter, saline taste. Soluble in about four parts of water and freely soluble in alcohol; dose from five to sixty grains. Cases are reported where as much as one hundred and sixty grains have been administered with no untoward effects. The lactate has been often prescribed for Bright's disease both in acute and chronic forms, with excellent results. Constantin Paul concludes that it is indicated in parenchymatous nephritis, the rheumatismal and gouty forms, but is not useful in interstitial nephritis. Dujardin-Beaumetz confirms these statements and says that when he had administered the remedy in cases of albuminuria, he has obtained uniformly a reduction in the quantity of albumen passed; that while it affects the most important symptoms favorably. it does not remove the pathological condition. The remedy possesses the advantage over other drugs in the treatment of this disease, in that it promotes the appetite, aids digestion and assimilation, and can be administered for a long time continuously with no bad effects.

In two cases of albuminuria of pregnancy, in which I have made use of the lactate, the most gratifying results have followed. In one case where there was severe headache, insufficient urinary discharge, general dropsy and the symptoms of uremia present, and where diuretics, purgatives and diaphoretics had signally failed to give relief, the lactate was substituted in fifteen grain doses every four hours, with a marked diminution of all the symptoms and a decrease of more than one-half the amount of albumen excreted within forty-eight hours. The improvement in the general condition of the patients was noted from the beginning of the treatment.

In several cases of cystitis in the aged. due to hypertrophy of the prostate, the drug was given in connection with buchu with marked amelioration of the symptoms. Although the lactate does not seem to possess any diuretic properties, nevertheless its action upon the urinary organs seems to be salutary in the extreme.

Professor Germain See, in the treatment of affections of the stomach, considers the strontium salts as far superior to the alkaline carbonates.

Bartholow states that the phosphate of strontium appears to rather improve the appetite, promote the activity of assimilation and increase the body weight. The phosphate more especially is a reconstituent, an agent having the power to increase the nutritive energies. Recently the salicylate of strontium has been highly extolled in the treatment of rheumatism. I have, however, had no experience with the drug.

For a number of years I have been satisfied that many of the untoward symptoms that follow the use of the potash salts in full doses, are due as much or more to the potash which they contain, as to the iodine or bromine. As we all know potassium is always a poison, even in small doses when often repeated. In bromide of potassium, potash constitutes one-third of the salt, and when given in large doses it cannot fail but exert its toxicological effects.

Well known authorities have long ago demonstrated that there was far less danger in the use of the sodium than the potash salts.

If we have in the strontium salts remedies that can be used in full doses and for a long time without the unfortunate effects that sometimes follow the use of the potash salts, it behooves us to give our patients the benefit of the fact.

Vaginal Douching.

Dr. Giles (Lancet) warns against the almost universal practice of vaginal douching by the laity under the direction of physicians and nurses. The researches of Winter, Doderlein, and others have shown that the vagina is normally inhabited by a certain bacillus to which, through the formation of lactic acid, the acidity of the vaginal secretions is due, and the special role of which appears to be to antagonize and disarm any pathogenic organisms that may enter the canal. But too frequent douching destroys this power of the vagina, and tends to produce a morbid condition rather than a beneficent one. The same rule applies to the practice of giving a vaginal douche before or during labor; for when this is normal, the uterine and vaginal secretions, followed by the rush of liquor amnii, tend to sweep the passage in the most effective way, namely, from within outward. The prolonged use of the hot douche in many cases produces chronic pelvic congestion.

Tubercular Peritonitis.

In an article on this subject Holmes arrives at the following conclusions (Annals of Gynecology):

1. Tubercular peritonitis is a relatively common disease.

2. It is never a primary disease, though it is usually impossible to find the initial focus.

3. Recovery follows laparotomy, as a general rule, unless there is an initial focus to keep up the disease.

4. This disease appears in three different forms—the exudative form, the dry form, and the ulcerative form, and they are recognizable in the order named.

5. Microscopical examination of the peritoneum is sufficient for a positive diagnosis. The demonstration of microscopical tubercles, or the recognition of the bacilli are only confirmatory.

6. Puncture of the abdominal wall for diagnosis, or for the removal of ascites and injection of air, fluid, or iodoform, is dangerous and should not be practised.

7. Laparotomy, with iodoform-gauze tamponade drainage, is the safest and most reliable treatment.

8. Laparotomy should be done as soon as there is a show of emaciation or when a relative diagnosis has been made.

9. A positive diagnosis can never be made before laparotomy.

A Remarkable Patient.

At a recent meeting of the Clinical Society of the Boston City Hospital a patient was presented who was convalescent from pneumonia. He was 84 years of age, and had been a sailor. At various times in his life he had been the victim of the following injuries: Fracture of the left femur, which had united with marked callus and 2½ inches of shortening; of the left patella; of the head of the right tibia; of the left clavicle; of several of the lower ribs on both sides; of the index fingers of both hands (these presented marked deformity); of the left ankle, and of the right scapula. He had also suffered from double incipient otitis media, bronchitis, and asthma. When shown to the society he had double incipient senile cataract. Several years ago he had had an epithelioma removed from the lower lip, and there had been no recurrence. The man's limbs are still muscular, though his age and the vicissitudes of his career have necessarily caused some wasting. His breadth of shoulders and depth of chest gave evidence of what must have been extraordinary strength and endurance.

Genesis of the American Hospital.

Dr. Arpad G. Gerster in the Medical Record has the following to say concerning hospitals:

In every community, as it emerges from the state of a village and becomes a town, there soon must arise the necessity for a provision to take care of the poor man when he is overcome by sickness. In a newly settled country thousands of instances of this interesting process of conception and birth of small institutions devoted to the care of the indigent sick can be observed. Whether the effort be private or public, the essential factors of the process are nearly idenical. Small, usually inadequate provision is made for building, instalment, and maintenance, the zeal of a few sanguine enthusiasts dragging along a reluctant train of well-to-do but sluggish and more or less selfish taxpayers or patrons and protectors. As to the medical service, there is not the slightest difficulty. In a primitive community, medical services go cheap; and as the wherewithal was generously provided by the council of the struggling young town, or by a number of magnanimous donors, 't is only fair and just that the medical profession should contribute to the good work its gratuitous services.

The inducements for accepting an office on the visiting staff of the new institution are many, the objections very few. True, that the work will or rather may consume much time, and that it does not bring anything to the larder. But it confers an honoring distinction, tempting to ambition, or flattering vanity, and to the seriously disposed it offers coveted and valuable opportunity for clinical observation and therapeutic effort. The services being gratuitous, the authorities feel that it would not be fair in an intensely practical society, thoroughly dominated by mercantile conceptions of life, to expect one set of men to bear the entire burden of the work. Relief is provided by the appointment of two, three, or more men to take charge of the service in alternation, each being on duty a few months only during the year. Thus the amount of work falling to the share of each of the incumbents is reduced to a minimum, and jealousy and envy are in a manner allayed. While there are a few patients only to take care of, work is scanty and much divided; on the other hand, the honors to be reaped from the arrangement are fairly and equally distributed and everybody is apt to be satisfied. In the beginning there is no segregation of patients into a medical and a surgical group. As to the house staff, not the slightest difficulty is found in filling vacancies by recent graduates from the medical schools. They get board and lodging: as a matter of course, no pay; and their terms of incumbency are short.

The marvellous development and growth of towns and cities within the last three or four decades necessarily led the enlargement of existing hospitals and to the foundation of new ones. And thus it happened almost everywhere that, while the size and scope of these institutions have attained first-class importance, the mode of providing for the medical service has remained in its primitive state.

The Sphere of Science.

The following is an editorial from the British Medical Journal:

The address given by the Archbishop of Canterbury the other day to the students of the London Hospital Medical College, will cause many to think of the past. He said that there were two great entrances by which all kinds of truth entered into the soul and mind of man. The one was through the spiritual and moral faculty by which it was possible for the mind to lay hold upon truths of the very highest importance, but which could not be reduced to the testimony of experience. The other was by the use of the bodily senses—the mind employing those senses under its own direction for the purpose of pursuing whatever investigation was chosen to be the subject of study. The manner in which the Archbishop developed his subject must have made some of his hearers reflect how short a time it seems since Darwin set men by the ears! How short a time since the theory that formative power had been, was, and would be continuously exerted, was thought by many to be opposed to religious truth! How fierce the excitement, and how rough the language used by either side! How little understood then what seems now so plain! Yet let us not deceive ourselves. The power to think clearly in abstract matters is given to very few, and though their judgment slowly imposes itself upon the mass it is not assimilated. The particular statement may be condoned on their authority, but the principle involved is not understood, and the next terms in which it is put forward will produce as fierce disputes as before.

For in truth there are two sides. The world of science is the world of sense, that of religion is the world beyond sense, and though science takes cognisance of the effects, yet the premisses of religion are not in her world. She is apt to say there are incapable of proof—and so they are; but she forgets that her own are like them in this: Science is a mass of inductions founded upon sense impressions, which can be proved true only by the senses whose truth is in question. The dull do not understand this, and the clever have agreed, since madness lies the other way, to beg the question. Yet it should be remembered now and then that necessity, which is more and more put forward in defence of religion, is needed to support science too. The premisses of each are believed because we cannot help believing them, not because we can prove either.

Science cannot affirm the truth of religion, since she deals with the world of sense alone; nor has she the right to say that this is the only actual. It is inept to declare that what she sees is all that can be. But when the evidence of sense is offered by religion, it is the duty and the right of science to criticise, for sense impressions are her own ground, and must be judged by her rules. Struggles will still arise on these subjects in the future as bitter as those that have been fought in the past, and the issue will assuredly be the same. Scientific men make many mistakes, but there is a gradual growth of truth, or of what stands for truth to us, and this is not to be gainsaid.

Another way in which science and religion meet is in the sphere of morals. Even if it be admitted that right conduct has its root in religion, and is mainly vitalized by its influence, either directly exercised or the result of inheritance, science supplies knowledge which is a useful, if not a necessary, complement to religious feeling.

It is well, then, as the Archbishop says, to survey carefully the subject, which is the mind and spirit of man. It is well to recognize two kingdoms in his world, and two faculties which must each be given due training and due honor. It is especially needful, in order to avoid misunderstanding and offence, that we should try to see clearly what belongs to each, and how in action they should be combined. But few succeed in this, for, besides the fact, which is of little real moment, that we have no standard of proof but ourselves, truth is relative, since men develop their faculties irregularly and unequally. One man feels little the spiritual influence which in another is supreme, and each recognises imperfectly the foundation on which the other stands.

Reality and truth are a world into which, perhaps, we never enter, and even those shadows of them that we see upon the wall are not all alike visible to each of us. Two sorts of men are common in the world, and common in both camps. The one is logical but narrow in vision, arguing rightly from his own, but Incapable of seeing the premises of his opponent. The second, blustering and inconsequent, prides himself upon his common sense in holding opinions on both sides, yet examines none.

Surgical Practice among Children.

Dr. Curtis B. Farquhar (Post Graduate) says:

It is well known that children do not bear shock and hemorrhage well, especially during the first two years of life. According to Heineke a loss of 1,500 grammes of blood in an adult is serious, and death may be expected when twice that amount has been lost; while in a child a loss of fifty grammes is serious, and hemorrhage amounting to 100 grammes may be fatal. Allowing that the body-weight of the child is one-seventh that of the adult it will be seen that the fatal loss for the child is only one-quarter of what it should be in proportion, or in other words, the infant is four times as sensitive to loss of blood as the adult. It has been the general opinion that if children recover from a severe hemorrhage they regain their usual health quickly, but it is by no means exceptional to have chronic anæmia follow, and it seems, therefore, certain that their capacity for blood production is much less than would be supposed from the active vitality of their tissues.

In some cases, too, we observe a failure of primary union of wounds and an unusual susceptibility to septic infection, even when the children appear fairly robust.

In attempting to explain this apparent paradox, we should never forget the great demand made upon the nutritive functions of a child to supply sufficient food for the tissue constructed in its daily growth, and the consequent possibility that a slight disturbance of assimilation may produce serious malnutrition with consequent failure of union in wounds, or ready entrance of septic infection. This is especially true in the case of operations for harelip and cleft palate, which interfere with the feeding of the child, and in which a slight infection of the wounds is unavoidable. Any case which cannot be explained by the various reasons given above, may be justly charged to the inherent difference in the constitutional resisting powers of individuals, that difference which is so difficult to determine in adults, and is still more difficult to appreciate in children, even when the influences of heredity and environment are carefully weighed.

In all operations upon children shock must be avoided by speed in operating, and by avoiding cooling of the patient's body.

The operation should be performed as rapidly as possible, and therefore the exact diagnosis of the case and the plan to be adopted should be determined beforehand if possible, so that there be no necessity for delay or consultation after the anæsthetic has been administered. Loss of heat is prevented by swathing the entire body, except the field of operation, in cotton, firmly bandaged on, and by the use of hot bottles. It is well to keep the head low, and in some operations, such as those for spina bifida in the lumbar region we have applied strips of adhesive plaster to the legs as if for a Buck's extension apparatus and then supported the child by them, head downward, on a board inclined at an angle of forty-five degrees. Hemorrhage is to be controlled by the usual methods, and every bleeding point should be compressed or secured at once.

Children are particularly liable to poisoning by the various chemicals used in sterilization, therefore in operations on them it is best to employ the methods of sterilization by heat, by repeated washing and by alcohol, rather than the use of bichloride of mercury, carbolic acid, or iodoform. Iodoform, however, seems to be well borne in tuberculous cases, and it is here that it is most needed. Cases of fatal poisoning have been reported in consequence of the use of carbolic solutions in wet dressings, and local gangrene is frequently observed even from solutions.

Creosote and Guaiacol Valerianate.

Frank Woodbury, in the New York Medical Journal, says guaiacol valerianate, both in full strength and diluted, produces, after a slight sensation of heat, decided anesthetic effects, which are slower in appearing than after the application of cocaine, and which are not followed by secondary hyperæmia. The drug has a strong odor of valerian which almost masks that of the guaiacol. The combination produced is an odor suggestive of walnut. It is a local anesthetic to the skin when applied in full strength.

In painful affections of the skin attended by hyperemia, such as inflamed acne or abscess in the external auditory canal, applications of pure gueiacol valerianate relieve pain and check pus formation. In chilblains this agent promptly relieves the symptoms. Small compresses placed over the painful points in neuralgia afforded almost immediate relief.

In acute rhinitis guaiacol valerianate should be diluted with three or more parts of oil of sweet almonds or liquid albolene. In this form it acts as a protective as well as an analgesic and antiseptic application. In chronic rhinitis, especially the purulent form, as well as in some varieties of atropic rhinitis, it may be used in full strength with advantage. In ulcerated conditions of supposed tuberculous origin a few applications will relieve pain and promote the healing process.

Internally guaiacol valerianate is given either in milk or diluted alcohol, or better, in the form of capsules. It checks bronchorrhea and reduces the number of tubercle bacilli in the sputum, at the same time preventing re-infection from the intestinal tract. It is well borne in moderate doses (ten to thirty millimeters daily.)

The Absorption of Salicylate of Soda by Cutaneous Application of Betul-ol.

While the treatment of rheumatic and gouty manifestations with sodium salicylate and colchicum preparations has been very generally replaced by colchi-sal capsules (a solution of the alkaloid colchicine in natural methyl salicylate) LaStrat, LaSerre, and others find that salicylate of methyl readily passes through the skin into the organism, and Nothnagel and Rossbach have shown that the blood rapidly converts it into the sodium salicylate, so that this local treatment may be advantageously used with internal remedies. A recent *brochure* by E. Gros, of Paris, entitled "*A Modern Pathological and Therapeutical Study of Rheumatism, Gout, Rheumatoid Arthritis, etc.,*" referring to the use of colchi-sal internally, recommends that it should be given in conjunction with local applications of betul-ol, an anodyne modification of pure methyl salicylate, which is absorbed more quickly than commercial methyl-salicylate or wintergreen and is not liable to redden or irritate the skin.

It is not absolutely necessary moreover to apply betul-ol to the affected part, should it be too tender or inflamed, and as it is peculiarly free from danger it is an ideal method of giving salicylate of soda when this drug cannot be tolerated by the stomach.

The existence of heart trouble has been shown to be no contra-indication. Betul-ol contains no morphine or cocaine, but it can be combined with these drugs. Its anodyne effects moreover are wonderfully prompt and usually this is unnecessary, when painted on the cutaneous surface with a camel's hair brush. Absorption is rapid, and as the surface becomes dry, it may be re-applied, remembering that each minim of betul-ol is exactly equivalent to one grain of salicylate of soda in the blood.

Betul-ol is miscible in all proportions

with alcohol, chloroform, ether and oils, and where friction is desirable the following formula is a good one:

℞. Betul-ol
Acid Oleici } aa ℥iij.
Ol Cerebinth.

Absorption of the salicylate is soon followed by freedom from pain, slight diuresis, a marked increase of all the solid constituents of the urine, especially urea and uric acid and when we realize that the drug is antiseptic, eliminative, cholagogue, antithermic and analgesic, it is easy to understand its efficacy in acute, sub-acute and muscular rheumatism, lumbago, neuralgia and many forms of gout.

Previous to the application of the betul-ol the surface should be washed with soap and warm water to facilitate its penetrating.

Further experience with betul-ol (Lin-Methyl-Salicyl-Comp.) will show it to have a very wide range of usefulness, either alone or allied with capsules of colchi-sal given by the stomach.

Massage in the Various Diseases of the Female Genital Organs.

In the British Gynecological Journal Dr. Rubenstein gives his observations in one hundred cases. He has reached the following conclusions as to the application of massage in different diseases:—

1. Cicatricial parametritis. Here massage is a powerful, and, in many cases, the only successful means of treatment. Gonorrhœa does not constitute a contra-indication to the use of massage under the above conditions. Under the influence of massage before everything else patients lose the painful sensations and following this the distressing pressure-feelings.

2. Exudative parametritis. In this massage forms a good means of treatment, but its usefulness is limited by the duration of time required to attain its aim, and by the care which it is necessary to use in selecting cases for massage so as to exclude those in whom exacerbation may occur. Hence massage should be avoided (1) when the swelling is distinctly thick in comparison to its extent; (2) when there is increased temperature. Likewise all more or less extensive swellings are unfavorable for massage.

3. Immovable retroflexion of the uterus. Here massage is a sound treatment. Those cases give the best results in which it is possible to reach the fundus uteri with the external hand in combined examination. After rectification of the uterus, the massage should be continued some time. The introduction of a pessary often speeds recovery.

4. In displacement back and to the side the same remarks are applicable as in 1 and 3.

5. Inflammation of the ovaries and the adjacent peritoneum (perioophoritis). Massage is very good in oophoritis, especially when the ovaies are fixed, but the results are very slow.

6. Chronic inflammation of the uterus and hypertrophy of the cervix are neither of them suitable for massage.

7. Subinvolution of the uterus after labor yields to massage very kindly, but the treatment must be continued some time—on an average one and a half months.

8. Amenorrhœa. Massage in certain cases will lead to complete re-establishment without pain, and as a rule permanently.

9. Chronic endometritis is not suitable for masaage.

10. Mobile retroflexion of the uterus is not very answerable to massage, but in certain cases it constitutes a good method, not too heroic, and fairly successful. In these the indication for further treatment is to be found in the subjective feeling of the patient after the preliminary sittings.

11. In descent and prolapse of the uterus and vagina, and likewise in vaginismus, massage is of no use, and in the latter it is absolutely contra-indicated.

As regards other diseases of the female genitals,—for instance, menorrhagia, dysmenorrhœa, local salpingitis or vaginitis,—the variety of their causes, and the insufficiency of observation have prevented the author from arriving at any practical conclusions. He decides from his observations that the number of sittings varies from ten to twenty, of four to six minutes duration, and spreads over from two to four weeks; massage of the female genitals is always performed bimanually; and as practically nothing more is required, it is within reach of every medical practitioner.

A Criticism of Serum Treatment for Diphtheria.

This was the title of a brilliant discourse delivered by Prof. Purjesz at the last meeting of the Budapest Medical Society, in which he said that although he was by no means an adversary of the treatment yet he could not consider the utility of serum injections as proved. (Lancet, Jan. 6, '98.) The advocates of serum treatment maintain that since its introduction the mortality from diphtheria has diminished. The Hungarian statistics show that the mortality from diphtheria had fallen in 1895 from

22,000 to 17,000, but it had also fallen from 1892 to 1894 (before the introduction of serum) from 49,000 to 22,000. The advocates of the serum treatment further state that the relative mortality from diphtheria had also greatly diminished and the figures, if not closely scrutinised, would seem to confirm this statement, for the statistics show that of 872 patients treated with serum 156 died—*i. e.*, 17 per cent.; whereas of 2889 patients not treated with serum 1187 succumbed—*i. e.* 41 per cent. But these figures are misleading. It is evident that all those who received injections of serum were entered in the statistics indiscriminately whether the attack had been a mild or serious one, whilst of those who did not receive injections only the serious case were noticed, which had passed through the hands of a medical man, the slight cases passing unnoticed. The omission of these mild cases will amply account for the difference of the numbers. Hospital observations are fallacious on the same grounds. In the Budapest Stephanie Hospital for Children the mortality from diphtheria had sunk from 70 per cent. to 20–22 per cent. since the introduction of serum, but that appears in an altogether different light when we learn that the morbidity of this disease had been steadily declining in Budapest since 1892, so much so that in spite of the increase of population it was reduced in 1895 to one-half of what it had been in 1892. Apart from the mildness of the epidemic there remains yet another factor to account for the relative decrease of mortality. In the year 1892 12 per cent. of all children suffering from diphtheria in Budapest, were treated in the Hospital for Children, whereas in 1895 the hospital cases amounted to 22 per cent. of the children suffering from diphtheria, the explanation of which is not to be sought for in the epidemic—this having been milder in 1895 than in 1892—but in the fact that many milder cases had been brought to the hospital for the purpose of the administration of the serum. Prof. Purjesz, in conclusion, adduced some other striking arguments and repeated his conviction that the alleged usefulness of the serum treatment still remains to be proved.

Some of the Accidents Attending Vaccination.

Murry, according to the London Lancet, states that the amount and extent of the inflammation attending vaccination varies according to the constitution and to the state of health of the person and child. From the third or fourth day after vaccination, when the vesicles begin to form, the vaccinated spots should be protected from abrasion by stitching some cotton-wool on the inside of the sleeve. Vaccination shields are in my experience very hurtful. As vaccinia finishes its course, trouble often arises through the vaccinated spots not healing rapidly. Various circumstances account for this, the most important being that the crust is rubbed off during sleep If, then, the vaccinated spots are not protected, not only are they liable to receive surrounding impurities, but may lead to auto-inoculation. In the out-patient department of hospitals such cases are frequently met with, and the infant's mother wrongly ascribes it to the vaccine. Such impetiginous eruptions are really due to ill-health and uncleanliness, and may appear on any part of the body. A form of eczema often attacks infants' heads and likewise is ascribed to vaccinia without reason. After the vaccine has dried on the scarified spots the infant can have his usual bath, but on no account should moist applications be used over the vaccinated spots. It should be remembered, too, that the irritation of teething often accompanies vaccinia.

The principal causes of bad and unprotective vaccination are, however, ascribable to the operator—the use of lymph taken at too late a period in the course of the disease, vaccinating with lymph removed from vesicles themselves badly developed or imperfect in character, the employment of lymph too long preserved, the use of a rusty or dirty lancet, and the manner of operating so that no blood is drawn and the lymph does not reach the cutis vera. It should be borne in mind that lymph from any exhausted vesicle is imperfect in power. It is improper, too, to vaccinate with lymph removed from a vesicle after the areola has been fairly formed, and it is decidedly injurious to vaccinate with lymph which is undergoing suppurative deterioration. An occasional accident attending vaccination is erysipelas.

In order to vaccinate always successfully great attention should be paid to details, and it requires a very decided degree of technical skill, patience, and experience. This is the more important when heifer vaccine is coming into general use. Its action is stronger than that of humanized vaccine.

Dr. Rumbold, Sr., says that the functions of the middle ear muscles are to select and amplify such sounds as the listener desires to hear most distinctly; making it appear that the ears have muscles of accommodation quite analogous to those of the eyes.

Chronic Gouty Affections.

Dr. Murrell reports (Practical Medicine) that he has successfully treated the acute manifestations of chronic gouty affections by a local application, which is as follows: Half an ounce of iodide of potassium dissolved in half a pint of rectified spirits (methylated spirit is used in hospital practice); then one ounce of soap liniment is added, and finally, one-half drachm each of oil of cajuput and oil of cloves. A piece of lint soaked in this mixture is wrapped around the affected part, covered with protective dressing, and kept in place by a bandage. It acts as a powerful counterirritant, and the inflammation usually subsides in from twelve to twenty-four hours. Dr. Murrell gives, in addition, a drachm of colchicum wine with ten grains of iodide of potassium three times a day. This produces brisk purgation, sometimes accompanied by vomiting, but it speedily cuts short the attack. This treatment is especially indicated in the case of robust, full-bodied men to whom the loss of a day's work is a serious consideration. In sciatica, lumbago and rheumatism affecting one joint, the local application of a liniment containing one-half ounce of salicylate of sodium, one-half drachm of cajuput, fifteen minims of oil of eucalyptus, and one-half ounce of soap liniment in six ounces of rectified spirit affords prompt relief.

The Indications for Operation upon Adenoids.

Dr. P. McBride, in the Edinburg Medical Journal, states that if the adenoids be of such a size as to materially interfere with speech and respiration, they should be removed. Middle-ear deafness is usually a strong indication, but there is one exception; middle-ear thickening, in which the signs and symptoms are those pointing to ankylosis of the stapes. The tympanic membrane is in such cases not much if at all indrawn, while frequently it has a flamingo-red tinge, and often the hearing is worse when the patient is excited or fatigued. In these cases it is well-known that shock and loss of blood cause exacerbations, and for this reason the pros and cons should be most carefully weighed before exposing such a patient to operation. Recurring earache may also be an indication for operating. It is desirable to refer to the fact that a small cushion of adenoid tissue so situated as to press upon the Eustachian orifices, may have a very definite effect on the ears, even though there be no symptoms of nasal obstruction. In some cases, repeated colds, occasionally followed by bronchitic attacks, or even asthma, necessitate the removal of adenoids, while the presence of glandular enlargements in the neck are of very great importance, in view of the tendency toward tubercular infection, which may exist.

If a fœtid otorrhœa should be present, it is advisable to postpone the operation until this condition has received treatment. In deaf-mutes the experience has been usually unsatisfactory, as regards the restoration of hearing power, even where the tympanic membranes have been markedly indrawn, but a few favorable cases have heen recorded.

There can be no doubt that fairly marked adenoids may exist without giving rise to any symptoms of importance, and may entirely disappear. Adenoids are sometimes present in patients suffering from hay fever, atrophic nasal catarrh, nerve deafness, and throat symptoms which were clearly neurotic in origin, the adenoids in these cases causing no inconvenience. In adults, obstinate naso-pharyngeal catarrh may be kept up by the persistence of this hypertrophy, which may give rise to no other symptoms, while the removal of it cures the complaint.

A Sign of Cardiac Failure.

The Boston Medical and Surgical Journal of November 4th, 1897, contains a good article with this heading. The author says:

One of the signs of cardiac failure is of great import, namely, a discrepancy between the rate of the arterial pulse and the rate of the heart-beats. He has observed in many instances that in cases of extreme cardiac weakness the pulse was very slow, intermittent and irregular, while the heart was rapid, and he does not refer to cases in which it is extremely difficult to count the pulse, as is always the case when the pulse is irregular, especially when the rhythm is irregular, but to cases in which the most accurate taking of the pulse by trained individuals does not show a rapid pulse-rate, yet examination of the heart shows that its action is extremely rapid.

He gives a history of several cases, among which was one admitted to the Massachusetts General Hospital with extremely irregular heart—a very nervous man in generally run-down condition. No organic lesion was discoverable, and it was supposed to be a functional heart trouble, due perhaps to excessive smoking, as he said he smoked all the time except when eating and sleeping. He went out after a few days and returned very sick, with an apex beat of 140 and a pulse of 70. There was then discoverable a slight dilatation of the heart;

in the course of two weeks there was a very rapid increase in the size of that organ, and with that increase there was the development of a diastolic, regurgitant murmur in the aortic region, which was supposed at the time to be due to an acute ulcerative process in the valves. Under digitalis the heart gradually became slower, the man ended his stay in the hospital by becoming insane.

Contracted Kidney in Children.

The following abstract is taken from the Medical Times and Register:

L. Bernhard, of Baginsky's clinic, refers to the relation between acute infective diseases and the kidney. Animals injected with pure cultures of diphtheria show parenchymatous changes in the kidneys, and this bears out what has been found in diphtheria in human kidneys. Any experimental investigation with scarlet fever poison has not been possible. In the scarlet fever nephritis the changes are chiefly interstitial, but both in diphtheria and scarlet fever the different forms of nephritis are not always pure. When the two diseases are combined then severe parenchymatous lesions and interstitial changes in the shape of a glomerular nephritis are found. Ziegler's view that granular atrophy of the kidney is due to a primary change in the glomeruli throws much light on the subject, but according to this writer there is a group of renal atrophies unconnected with circulatory changes. As both in acute and chronic nephritis these changes in the glomeruli occur, so in both atrophic processes may arise, sometimes local destruction of glomeruli and overgrowth of connective tissue may be found in kidneys where there is no diffuse interstitial change, or indeed, any severe lesion. The author looks upon this as being a partial contraction of the kidney owing to a past nephritis. He then records two cases of contracted kidney:

1. A boy, aged 14, died of pulmonary phthisis. Here there were marked interstitial changes in both kidneys. The surface of one was smooth, but that of the other granular. The process in both kidneys was the same, but more advanced in one of them. There were three causative factors in this case: (a) the tubercular virus, (b) the severe anemia, and (c) the circulatory disturbance produced by the lung disease.

2. A boy, aged 3, died from complications of measles. The one kidney was much larger than the other. In the larger kidney there were small calculi present in the chalices. In the smaller kidney there were marked interstitial changes, and the pelvis was dilated. The author thinks that the contracted kidney here was due to calculous disease and was secondary in character.

He refers to another case in which a contracted kidney existed in all probability along with lardaceous disease. The symptoms of contracted kidney are almost the same in the child as in the adult. The common causes of contracted kidney in the adult are mostly absent in children, namely, alcohol, lead and uric acid. Atheroma of vessels is rare in children, but has been observed. Syphilis is certainly a causative factor, as well as hereditary influences. Of course the disease must be rare in children. It is important to recognize the early symptoms, and thus the nephritis complicating the acute infective diseases must not be lost sight of. The nephritis complicating gastric and intestinal affections must also be borne in mind. After acute illnesses the urine must be repeatedly examined, and with the knowledge thus gained the commencement of the contracted kidney may be recognized and perhaps warded off.

Mosquitoes and Malaria.

Dr. Ronald Ross, in the British Medical Journal, says:

After searching for two years for the malarial parasite in the mosquito, the author has finally found a single species of the insect whose stomach wall contained large round vaccuolated cells, in which could be seen pigment granules undistinguishable from the pigment found in the hemmeba. These cells were seen from four to five days after feeding the mosquitos upon blood containing crescents. The specimens were submitted to Dr. Patrick Manson, who says, "I am inclined to think that Ross may have found the extra-corporeal phase of malaria." It is, of course, possible that these cells may be something quite other than this. Dr. Thin is of opinion that the cells are not parasites, but belong to the epithelium of the stomach, and have taken up the malarial pigment. He emphasizes, however, the fact that this only occurred in one specimen of the mosquito. Incidentally Dr. Ross found the filiaria in the blood of this same mosquito species.

Drainage in Abdominal and Vaginal Section.

Dr. Senn, according to the Gynec. and Obstet. Journal, employs what he calls tubular, capillary, and combined drainage. When he drains for pus, whether through an abdominal or a pelvic incision, he invariably resorts to Keith's drainage tube.

Capillary drainage by means of the gauze tampon is reserved for cases in which it becomes necessary to arrest hemorrhage. When little bleeding is expected, but copious effusion of serum (the product of a primary wound secretion) is inevitable, combined drainage is practiced by Senn. A Keith's tube is packed lightly with one strip of iodoform gauze, "which," he insists, "is an enormous advantage over the older methods of tubular drainage by removing the fluid in the tube by means of a syringe." The tube keeps the canal of the wound well open, and the gauze drain is sufficient to lead the bloody serum into the hygroscopic dressing. This arrangement greatly diminishes danger from infection after operation.

The Evolution and Perfection of the Aseptic Surgical Technique.

Dr. Lewis S. McMurty in a recent paper before the Southern Surgical and Gynecological Association at the Nashville meeting spoke as follows:

In taking up the various parts of the surgical technique with a view to detecting its vulnerable points, we must first direct our attention to certain personal characteristics of the surgeon himself. In the first place it is indispensable that one doing surgery should have some knowledge of the character and life history of the micro-organisms with which the surgeon has specially to deal. It will not suffice to have only a vague idea that germs exist which if conveyed into a wound will infect; the surgeon must know something of the habitat and mode of diffusion of these invisible forms of life. Fortunately bacteriologists have so simplified this subject that one can very easily provide himself with all essential knowledge relating to the pyogenic bacteria. He should especially attain such familiarity with the character of these micro-organisms as to realize that their spores offer much greater resistance to germicidal agents than the mother-plant. Moreover, the surgeon must have some high conception of cleanliness in order to establish proper defense against wound infection on the part of himself and of those associated with him. As long as the meaning of personal cleanliness must vary with the individual interpretation of the surgeon, so will anything like absolute uniformity of results in surgical practice be impossible. And when we come to consider that these same varying features of individuality must obtain in assistants and nurses, we realize how complex and difficult is the apparently simple problem of surgical cleanliness. Indeed, for attaining anything near perfection in aseptic operative work, the combined efforts of surgeon, assistants, and nurses, endowed naturally with special capacities for individual cleanliness and mastery of details, are the essential requisites.

With the improved facilities now at the command of operative surgeons in modern hospitals, protection from infection in so far as relates to instruments, sponges, and their substitutes, dressings, sutures and ligatures, together with operative utensils such as basins, tables, and other apparatus may be guaranteed. With the usual methods of mechanical cleansing, followed by sterilization with boiling water or steam, it is a simple and easy process, if intelligently and faithfully applied, to render these materials free from the possibilities of infection. That it requires care, vigilance, intelligence and faithful devotion to the work to establish and maintain such perfection of detail every one who has followed the work knows full well; but that in this part of the operative technique absolute immunity from sepsis can be secured there can be no doubt. That part of the operative technique, however, presenting the greatest difficulties relates to the disinfection of the surgeon's hands and those of his assistants.

Here is undoubtedly the vulnerable point in our armour. When we remember that the surgeon's hands from the nature of things must come daily in contact with pyogenic bacteria in the performance of his varied duties, we must recognize that here lies the greatest peril of wound infection. Moreover, since infection obtains by contact the surgeon's hands are the most constant medium of germ transmission. It is daily demonstrated that boiling is absolutely destructive to all forms of bacterial life which could possibly infect a wound, but no method yet devised can with such assurance and certainty sterilize the surgeon's hands and the field of operation. It is to the perfection of this part of the operative technique that more care should be given and improved methods should be devised.

The perfection of the operative technique cannot be attained through *preparation* of instruments, sponges, ligatures, sutures, hands of operator, of assistants, of nurses, and of field of operations *alone*. There remains the additional requirement of *maintaining throughout the operation* protection of all exposed parts from both direct and indirect routes of infection. There must be a special skill, acquired through training and self-control, which concentrates the operator's mind upon the work before him, and which assures a manual dexterity that holds all the operative field in hand, with directness of purpose and decision of action. No preparation of instruments and apparatus; of sutures, ligatures, and sponges; of hands and field, perfected by sterilization by heat and germicidal solutions, can secure perfection and uniformity in asepsis except it be supplemented by such operative skill as I have endeavored to indicate in this paragragh.

The Value of Fruits.

Modern Medicine states regarding fruits as follows:

Fruits are, however, of great value in many forms of disease, because of the acids which they contain. These acids when taken into the blood break up some of the compounds of waste substances which have been formed, and thus give rise to an increased excretion of these substances through the kidneys. In this way fruits are a great advantage in the treatment of rheumatism, gout, gravel, and all the different morbid conditions which accompany the so-called uric-acid diathesis. The observations of Haig respecting the relation of uric acid to neurasthenia give to fruit a great dietetic value in this disease. He has shown that neurasthenia is almost always the result of the accumulation within the system of tissue wastes. largely in the form of uric acid. The free use of fruits aids in the elimination of these poisons, not only by breaking up the compounds which they form within the body, but by stimulating the kidneys to increased normal activity.

Remembering the interesting fact pointed out by Bouchard, that rheumatism is really a toxemia, resulting from the decomposition of food-stuffs in a dilated or prolapsed stomach, we may also attribute the beneficial effects of a fruit diet in rheumatism and allied conditions to its value in suppressing the formation of poisonous substances in the alimentary canal in the manner already pointed out.

Obesity, which is, like rheumatism, a diathesis, may be successfully treated by a fruit dietary. This is due not only to the fact that fruit is a natural food, and thus aids the system to establish normal tissue metamorphosis and a normal balance between the processes of assimilation and dis-assimilation, but also because it affords a very comfortable means of reducing the amount of nutrient material received to a minimum quantity.

Fruit is chiefly water, the amount of nutrient material it contains varying from five to eight or ten per cent. in most fruits, rising to a higher figure only in dried fruits, such as dried grapes, prunes, dates, etc. The writer has succeeded in reducing excessive weight in the most satisfactory manner, by prescribing a diet consisting almost exclusively of grapes or apples, allowing only a small bit of thoroughly dried bread or zwieback in connection with the fruit. In some cases the fruit may be allowed as often as three or four times a day, if necessary to relieve an uncomfortable sensation of emptiness.

In fevers, fruits, especially in the form of fruit juices, are a most convenient and certainly the most appropriate of all foods. It is now almost universally recognized that beef tea and meat preparations of all sorts should be wholly proscribed in cases of fever, as the patient is already suffering from the accumulation of waste matters to such a degree that the addition of even the small amount contained in beef tea or a small piece of meat, may be sufficient to give rise to an exacerbation of the disease and lessen the patient's chances for recovery.

Climate or Environment as a Factor in the Repair of Neurasthenia and Melancholia.

J. M. Taylor, writing in the Boston Medical and Surgical Journal, points out a very serious omission in our study of climatology. He says that there is a strong belief prevalent among the profession and the laity alike that climate exerts a marked influence for good or ill upon persons suffering from brain fag, nerve tire, and melancholia. Unfortunately, the writing of climatologic experts has hitherto been directed almost exclusively to the needs of sufferers from pulmonary, asthmatic, rheumatic, or other ailments. He says that there are large numbers of patients suffering from mental depression and the effects of excesses of various sorts who refuse systematic medical treatment, but are quite willing to try a "change of climate," which they often prescribe for themselves. For this class of patients he regards environment and suitable companionship as of more importance than the climate itself; while many advantages can be claimed for radical geographical changes, escape from a cold winter being one of the most conspicuous and popular ones. The warmth and sunlight of some tropical regions afford opportunity for outing which cannot be gainsaid, but it is a question whether the reversal of the season is valuable for those lacking in vascular and nervous tone, for whom cold under suitable precautions is an invaluable tonic. In his paper the author does not offer guides in the selection of a climate, as he recognizes that the data for such are not yet available, but he earnestly suggests that those having experience with the subject will contribute, so that the subject of climatology in the treatment of nervous affections may be put upon a firm basis.

Ernest Hart.

Ernest Hart, editor of the British Medical Journal, died in London on January 7. He was born in June, 1836. He was educated at the City of London School and the School of Medicine attached to St. George's Hospital. At one time he was ophthalmic surgeon and lecturer on ophthalmology at St. Mary's Hospital. He rendered great service in exposing defective arrangements for sick poor in workhouses, his efforts leading to the passage of Hart's Act and the creation of the Metropolitan Asylums Board. His reports on criminal baby farming in 1868 led to the passing of the Infant Life Protection Act.

Mr. Hart was Honorary Chairman of the National Health Society and President of the Medical Sickness, Annuity and Life Assurance Society. He was appointed editor of the British Medical Journal in 1866.

Diabetes.

Dr. William A. Thompson in a discussion in the Academy of Medicine. N. Y., concerning diabetes said:

He did not believe in physiological albuminuria or glycosuria, for he had repeatedly noted, in records extending over many years in private practice, that a very slight glycosuria had eventually developed into diabetes and Bright's disease respectively. Glycosuria was the first step toward diabetes, and the degree of severity varied very greatly in different individuals. Our clinical experience taught us that there was a very great difference in the disease depending upon certain factors. Foremost among these he would put age. The younger the person, the worse the prognosis. The only cases in which he was not very much disturbed by finding glycosuria were those of silvery-headed men and women. Those who became diabetic under twenty years of age usually exhibited a very uncontrollable form of the disease. He was firmly of the opinion that it was not the sugar that caused the fatal explosions of diabetes any more than it was the urea in Bright's disease that gave rise to the symptoms of uræmia, but that certain changes occurred in the sugar and alied bodies through the operation of toxins. These toxins were responsible for the development of acetonuria. He was always alarmed when a diabetic patient had a sweetish breath. Another important and closely related clinical fact was the disappearance of the urinary pigments. We had much yet to learn regarding the significance of pale urine in both diabetes and Bright's disease.

Opiates should be the last resort. He had always maintained that opium should be the very last resort in diabetes instead of being the sheet anchor, as many physicians seemed to believe. The preparations of opium should be used in diabetes, not as curative agents, but rather as a means of smoothing the path to the grave. His treatment of diabetes consisted in the systematic use of intestinal antiseptics, and he was especially strenuous on this point if he feared the supervention of coma. He also believed in the administration of arsenic, cod-liver oil, and iron, and sometimes of phosphorus and alkalies. He maintained that these agents were curative in a certain proportion of cases, particularly in those developing after forty years of age. He was always pleased to learn that a diabetic patient was gouty, because this materially improved the prognosis.

Diet should not be too exclusive. He was, however, in hearty accord with the reader of the paper regarding the matter of diet. If under a diet containing carbohydrates we found that the patient was not losing weight or developing special diabetic symptoms, no matter if the sugar still persisted, we were justified in keeping up such a diet. He had seen harm done by a too rigid exclusion of carbohydrates from the diet of diabetics, Bread could be taken in the form of very thin slices, so thoroughly browned as to be more than toasted. In his experience potatoes had not been nearly so injurious to diabetes as the cereals. He would much rather have a diabetic take a moderate amount of potato than the special diabetic breads. The question of prognosis should be determined by an experiment to ascertain the extent to which the sugar diminishes under a rigid exclusion of carbohydrates for a period of three days. If the proportion of sugar remained relatively high, the prognosis was certainly far more serious than when the reduction in the quantity was more prompt.

Premonitory symptoms of diabetes. Regarding the early symptoms of diabetes, the speaker said that the great majority of diabetics had sugar in the urine only intermittently at the outset. For this reason the urine should be repeatedly examined if a patient exhibited a decided form of nervous dyspepsia, or a condition of nervousness formerly unknown to the individual, or a tendency to pharyngeal catrrrh, or when there was a tendency to cramps in the calves or the legs in the early morning. This last symptom was also common in gout and in chronic endarteritis, but when these conditions could be excluded the symptom was one strongly presumptive of diabetes. Under such circumstances the physician should examine both the morning and the evening urine for several days.

A Curious Case of Vaccination.

The following case, taken from the London Lancet, shows some of the features of an extraordinary vaccination which was reported by Dr. Lamb:

On November 21, 1897, I was called to see a man and his wife, having six weeks previously vaccinated their child. The parents had during this period been attending to the child's arm, which was discharging some clear fluid, and the vaccination marks were covered with brownish crusts. No definite history of innoculation could be got; but on several occasions the husband had attended to the child's arm before getting out of bed and had then micturated without previously washing his hands. On November 17 he complained of some pain and tenderness in the groin and also noticed some swelling in that region. He discovered some marks on his penis, but did not take much notice of them. On the same day his wife had pain on micturation, but had no viginal discharge. On the 18th the swelling was more noticeable and the pain and tenderness were much increased. His wife also had a small swelling in the right groin. On the 21st both husband and wife were worse. On examining the husband I found the horizontal inguinal glands were much enlarged on either side and were also painful and tender. On drawing back the prepuce I saw five typical vaccination marks about a week old on the glans penis. The vesicles contained a very small quantity of lymph. There was no urethral discharge. His wife had two vaccination marks, one just inside the labia and the other at the margin of the orifice of the urethra, the latter accounting for the pain on micturition. They seemed to be about the same age as those on the glans penis of the husband. There had been no sexual intercourse since the 14th. On the 22d the conditions were more aggravated in both cases. In the husband's case there was some swelling of the penis, and by the 23rd that had become so great that the prepuce could not be retracted, and there was some discharge coming from the glands, but none from the urethra. On the 27th the glands in both were nearly their normal size and all the local conditions in both husband and wife were not so great, although the wife had still some pain on micturition and a slight discharge from the vagina. On the 29th the husband returned to his work and the wife was able to resume her house duties without any discomfort.

The mode of onset and the subsequent history with their complete recovery in so short a time leave no doubt as to the true nature of the case.

The Limits of Vaginal as Compared with Abdominal Exploratory Section.

Dr. Coe in a recent edition of the Polyclinic gives the conditions which lead him to select the abdominal method of exploration:

1. In the case of neoplasms or obscure enlargements which are situated in the abdominal cavity or which have risen above the pelvic brim, especially if they are more or less adherent.

2. In ascites of doubtful origin, more particularly when tuberculous or malignant disease is suspected.

3. In cases of disease of the adnexa in which the latter are situated near or above the pelvic brim, as established by bimanual palpation.

4. In cases in which the history and symptoms point to general intestinal adhesions, and above all when appendical complications are suspected.

5. In ectopic gestation before rupture, when the sac is high up, at the side or in front of the uterus, instead of in Douglas' pouch.

6. In cases of extractable pain of obscure origin, including the neuroses.

On the other hand explorative vaginal section should be preferred:

1. In all cases in which the presence of pus within the pelvis is suspected, as in pyosalpinx, pelvic abscess proper, suppurating dermoids and cysto-adenomata, and hematocele.

2. In the case of small intrapelvic tumors situated in the pouch of Douglas, or at least readily accessible from below. Impacted ovarian cysts, dermoids and fibroids belong to this category.

3. Adherent adnexa situated in the true pelvis.

4. Unruptured ectopic sacs in the same locality.

5. Circumscribed exudates and indurations in the broad ligaments or behind the uterus, especially when associated with displacement and fixation of the latter organ.

Marine Hospital Service.

Dr. Sam Cochran, referring to this subject in the Louisville Medical Monthly, writes as follows:

This is an organization the work of which is carried on so quietly that only on occasions like the recent yellow fever scare are we brought into contact with it. It is not connected with the navy, as is generally imagined, and positions in it are much more desirable. All appointments to this body are made under civil service rules, and the necessary preliminary examination is not unduly severe. Once passed and received into the service, the candidate becomes at once "assistant surgeon" with the titular rank of lieutenant, and is assigned to duty at some large post hospital where all facilities for practice are afforded him. After five years of this service he becomes "past assistant surgeon," with increased salary. and after another five years he is promoted to the rank of "surgeon," the highest grade he may attain. Here his annual salary is $2,800, and as he continues in the service, it is increased according to a fixed scale until it reaches $3,500. In addition to the regular salary, lodgings, fuel and light are furnished free. The great advantage, however, which the surgeon in this branch of the service holds over his colleague in the army or navy is, that he is never "retired." While they remain in service they are on active duty and are never shelved.

The Preventive Treatment of Baldness.

Basing his treatment on the fact that the hair contains a substance similar to glue and gelatin, Dr. Deichler has administered colloids in different forms, in different affections of the hair (La Med. modern). Together with a tonic regime, he gave the patients bouillons prepared by prolonged boiling of two parts of meat and one part of bones. The bones were frequently replaced by gelatin, or by shavings of deer's horns, which are very rich in ossifying cartilage.

The favorable effect of this treatment is seen first of all in old men; with the improvement in the general condition there is an increased elasticity, a kind of rejuvenation of the skin; there was also a certain diminution in the rigidity of the arteries (which fact induced the author to try the treatment in arterio-sclerosis). In younger persons the action of the colloids showed itself upon the hair very distinctly. The thin hairs became firmer, they acquired a brilliant lustre, the falling of the hair ceased. This favorable influence showed itself in the hair all over the body. The nails also became more brilliant and transparent. Systematically used, this treatment will go far to prevent baldness. At the same time, the hair should be well taken care of, and one of the best ways to do it is to wash it frequently with soap and water.

The Condition of the Salivary Digestion in Anemia.

Dr. Samuel McC. Hamill, of Philadelphia, makes the following summary in regard to the salivary organs in anemia:

1. The quantity of saliva in mild febrile diseases is increased and its ferment-action unchanged.

2. In severe febrile diseases the quantity of saliva is decidedly lowered and its amylolytic action increased, the ferment evidently being secreted in a saturated condition. The salivary quantity is lessened as the amylolytic action is increased, but there results quite an important lowering of the total ferment.

3. After the crisis the quantity as well as the ferment-power of the saliva is reduced.

4. In acute, long-lasting febrile diseases the quantity of the saliva is not infrequently normal, but its amylolytic action is subnormal.

5. In pulmonary tuberculosis, even in severe cases, the quantity of the saliva is not lowered, and its ferment-action is normal. Not until a few days before death is the quantity lowered, but even then the ferment-action remains unchanged.

6. In chronic nephritis the salivary quantity is diminished and its amylolytic action not seldon subnormal.

7. In ascites the quantity of saliva is lessened, while the ferment-action suffers but little change.

8. In long-lasting, debilitating diseases, such as scurvy, Addison's disease and diabetes, the total ferment-power is often diminished.

Mosler found the diastatic power of the acid saliva of diabetes not decreased, but very strong.

The results here given comprise the greater part of the work relating to the ferment-value of the saliva in pathologic conditions.

The observation of Jawein, that the diastatic power of the saliva is not infrequently diminished in long-lasting debilitating diseases, together with the fact that the various secretions of the body are altered, and that the glandular functions and tissues in general are changed, and the occurrence of sialorrhea and sialaporia in the various anemias, have led me to study the ferment-power of the saliva in these conditions.

Report of the New Jersey Medical Examiners.

The report treats first of academic education. It says:

"One of the marked deficiencies in applicants for the medical license of this State is the lack of a sufficient academic education. The law demands a competent, common school education as a preliminary condition to examination for medical license. * * A minimum standard of academic requirements is necessary to maintain the demands of a learned profession, and the present standard is as low as is consistent with the welfare of the profession of medicine. * * An entrance examination has been adopted by the Association of American Medical Colleges which is in advance of the requirements of the board. This board, however, favors the extension of our requirements to meet those of the Medical College Association."

The report in this connection mentions incidentally that but 13 per cent. of the applicants for licensure had a first degree.

The Alleged Heredity of Consumption.

There is no doctrine more firmly impressed on the mind of the average director of a life assurance company than the hereditary transmission of consumption, says the British Medical Journal. Yet, like other cherished beliefs, this doctrine is being attacked on all sides, and if it is to remain as one of the fundamental principles of life assurance, fresh statistics must be collected so as to confute the statements confidently made by its opponents. The discovery of the tubercle bacillus and the confirmation of the infectious nature of consumption has thrown quite a new light on some of the questions connected with the transmission of this disease. The old statistics, which simply stated the number of consumptive persons who came of a consumptive parentage, will not now suffice to convince any thoughtful physician that the disease is transmitted by inheritance. There can be little doubt that in many of the so-called cases of transmitted phthisis the patient acquired the disease by contagion, his powers of resistance to the bacillus being enfeebled by the same conditions of environment as led to his father or mother being affected. In order, therefore, to prove that consumption is inherited, it will be necessary to show that the children of consumptive parents, when removed from the influence of the parental environment, succumb to the disease to a greater extent than do the general population. Dr. T. O. Edwards, of Hartford, Conn., assistant medical director of the National Life Association, has treated this question with much force and lucidity in a paper entitled "Facts, Not Theories, in Regard to Consumption from an Insurance Standpoint." He says emphatically: "It is more important to inquire strictly into the environment and personal condition of the applicant than it is to reject or accept wholly on the now believed false theory of heredity and predisposition, remembering that there is no tangible evidence of heredity, and that predisposition is environment and proximity to the risks of personal infection."

Diagnosis of Abdominal Disorders.

Joseph Eastman says in the Denver Medical Times:

The differential diagnosis between ovarian cystoma and uterine fibroma is not always so easy as some folks would have us believe. In the last four months I found an abdomen which contained a multilocular tumor, distended as high as the umbilicus. Lying in front was a cyst, containing dense gelatinous semi-solid substance, with no apparent fluctuation. Several other cysts so completely surrounded the uterus that by vaginal examination the uterus was inseparable from the mass, and the entire tumor was so completely moulded into the pelvis that one of the best surgeons in the West advised against operating so long that decomposition of the cyst in the region of the ureter made the ultimate recovery of the patient after the operation impossible.

In such cases it matters little what we call the tumors; they will not come by calling; they must be gone after. And since it is the gospel to women that fibroids can be removed with the same low rate of mortality as that which follows removal of ovarian cysts, and where the tumor is interfering with the health or happiness of the patient, a differential diagnosis before operaring is useless. In such cases the language of Mr. Tait is in point; "Absolute accuracy of diagnosis is far from being possible, only the ignorant assert that it is, and only the fools wait for it."

Comparison being the key to all definite knowledge, one must be thoroughly familiar with the normal anatomy of the abdominal organs and the relation they bear to one another. The normal shape of the organ and the manner of its attachment determine in some degree the character of the development and the direction of the growth. We have, moreover, a standard with which to compare the pathologic conditions, their size, density, shape and location, following the rules of physical diagnosis, viz., inspection, palpation, auscultation and percussion. Where tumors grow from above downwards we can by inspection above the transverse line, note that the tumor is affected by the movements of the abdomen, unless the growth is post-peritoneal or its attachments are very firm. Enlargement of the liver or spleen can generally be made out by dipping the hand under the abrupt inner margin of these viscera. I have noted, however, exceptions to these rules. In a case from which I removed an ovarian abscess, I subsequently found the spleen hanging over the promontory of the sacrum. Four years later, when I removed this spleen, I found that it had been resting upon the floor of the pelvis, adherent; and had I not recognized it as the spleen in a former examination, would have made my incision below the umbilicus instead of above. This operation was necessitated because of a dragging sensation in the left side. She was able to return home in two weeks after the splenectomy. She came to Denver for tuberculosis, dying six months later.

Differential diagnosis between a prolapsed and floating kidney and distended gall bladder are, as a rule, easy of accomplishment; the displaced kidney swaying from side to side, but easily reversing to a position under the liver; the gall bladder pointing in the direction of the umbilicus, swaying from side to side, but not allowing itself to be replaced under the liver.

In twenty-four operations for distended gall bladder, and many operations upon the kidney I have found some marked exceptions to this rule. I recall a case, which I reported some years ago in the Journal of the American Medical Association, in which an irregular tumor in the region of the gall bladder, as large as a human head, and the extremely jaundiced condition of the patient, induced me to conclude that nearly all of the evidence pointed to cirrhosis of the liver. I left, however, a loophole that exploratory incision alone could complete the diagnosis. Abdominal section disclosed an enormous fibro-cystic kidney, containing a quart or more of pus and urine which had so compressed the gall bladder and liver as to cause the absorption of the coloring matter of the bile and the extreme jaundice. Patient lived five years.

Gonorrhea in Children.

Storer, of Boston, gives the following details in the management of these cases:

It is not seldom that we see vaginal discharges in poorly nourished children, especially in those living under bad sanitary conditions. This discharge, milky or nearly colorless, with little or no irritation of the vulva and the urethritis, seems almost a reflex of the poor general condition, without any specific infection. These children are apt to be scrofulous or syphilitic. One in eight of Pott's cases had congenital syphilis. We know how obstinate a simple leucorrhea sometimes is in adults, in phthisis and other wasting diseases. The vagina is normally a nest of bacteria, even after the first bath (Stroganoff); and it seems probable that under such conditions organisms ordinarily innocuous may cause irritation. It is quite possible that decomposing smegma may be the starting-point, as Pozzi suggests. In these cases the microscope will show only single bacteria of various kinds.

In gonorrhea in children the urethra is apparently quite as apt to be invaded as is the case in the adult, and, conversely, a urethritis is proof of a given case being gonorrheal. There was an obstinate urethritis in 17 out of 21 cases seen by Prochownik, and this proportion has nearly been maintained in my own experience. On the other hand, painful urination is not by any means proof positive of an urethritis, as the pain may be due merely to concentrated urine passing over the inflamed vulva, nor does an apparent hematuria always imply an urethritis. In a recent case of mine in which there was no urethritis the reported bloody urine was found due to an admixture of the sanguineous vulvar discharge. In the later stages of a vulvovaginitis there sometimes occurs a pseudohematuria due to a growth of very vascular and easily bleeding tissue around the meatus, which generally passes under the name of prolapse of the urethra.

Whatever local treatment be employed the child should be kept in bed during the acute stage. Walking is generally painful; in fact, it is often the waddling gait that first attracts attention to the trouble. Whether the urethra be involved or not, the child should be encouraged to drink freely and be given mild diluents or balsams—say, ol. santali five drops t. i. d.—which will at least render the urine less irritating to the inflamed vulva. If greatly so, it may be well to allow the child to urinate in a warm hip-bath. Especially nervous children will sometimes hold their water much longer than is desirable, from dread of pain, and such cases can, sometimes be helped greatly with cocaine. The genitals should be kept clean with hot boracic solution, which should be used several times a day, and, if necessary, pain should be calmed by sedative washes like that of lead and opium, or by hot, mildly antiseptic compresses. The bowels will, of course, be kept open, partly on general principles and partly to lessen pelvic congestion; in fact, a laxative will often be quite enough to stop the discharge in some of the catarrhal cases. Injections are to be avoided during the acute stage, except perhaps one of warm salt solution or of sodium bicarbonate, if the discharge be very copious. The introduction of anything between the inflamed labia is painful and strong injections only aggravate the discharge.

The method of local treatment that has been most satisfactory in my hands—a modification of that of Marx and Rocas, based upon the suggestion of Janet—is the use of graduated solutions of permanganate of potash.

The Rational Treatment of Whooping Cough.

Busdraghi has the following to say in the St. Louis Medical Era in regard to the treatment of the above disease:

Whooping cough has three stages. The first is that of any ordinary catarrh. In the second there is an abundant secretion of mucus, which is in great quantity, and has much to do in exciting the cough. In the third stage drying takes place, and the paroxysms diminish in number, but not intensity—finally the nervous element, alone, remains, and this gradually dies away. The continuance of the disease is about three months, and for this reason among the Japanese the name applied to this affection signifies "the hundred days' cough." Generally the course is benign, and except a few complications, hemorrhages from the nose, ears and pulmons, acute capillary bronchitis, etc., which aggravate the disease, and also provoke death, all patients recover perfect health.

Whooping cough spreads among children with extraordinary speed, beginning with one patient, in a short time a village or the quarters where it appears are completely invaded by the contagion; therefore it is very important to avoid contact and to follow rigorously a few hygienic laws.

When a child is affected already by the disease, one must take care that the plague does not increase and spread in the dwellings, and that the sputum is collected in the spittoon with disinfectant solutions, or in a handkerchief, which is to be changed frequently. The temperature of the habitation must not be higher than 19 deg. Centigrade. The authorities will be obliged to prohibit the patients of whooping cough from going out to public promenades or in coaches, trains, railways, etc.

Hygienic rules, it is true, have opened a new horizon in the treatment, and in the prophylaxis of disease, but considering the condition of our houses, of the water, air, cities and towns, and the means which the generality of the people have at their disposal, often it is almost impossible to observe them. Moreover, cases are known in which whooping cough has been contracted in utero.

I have treated 120 patients of whooping cough, following a method which while it seems different from others in novelty, is according to the teachings of almost all authors, and for that reason I have named it rational. It is very easy to carry out, and for its good results deserves to be known by all pratical medical men. Indeed, reading all that has been written on the subject, the numerous medicaments employed, those preferred by different authors, judging which is best, in the great confusion which governs the multitude of treatments and methods, it cannot pass unobserved that every author has had in view three principal objects, that is, a good disinfectant for the throat, a sedative for the nervous system, and a reconstituant in order to sustain the forces of the patient. The happy results of treatment depend, therefore, upon the wise selection of the healing means, which every medical man, guided by science and experience, should know how to make.

I, who have rounded my studium on so many patients, recommend the following method:

As disinfectant, nothing is better than the atomization of a 2 per cent. solution of carbolic acid. This is sedative, anæsthetic and disinfectant. Its taste is sweet, its smell agreeable and well tolerated by the children. Its action is surprising, and superior to other disinfectants. The atomization is carried out once a day, during ten minutes each time.

As a sedative there are very many partisans of belladonna, but its poisonous action, its influence on the glands, the harshness in the doses, the several applications, according to the age, make it dangerous, difficult and uncertain. In a little boy, nothing is better than a placid sleep, durable and reparative. To obtain this in my cases, I have employed the Trional in doses from 0.10 to 0.50 grains, according to the age of the children. I have not seen any inconvenience from it. It has been tolerated perfectly well; the sleep has been interrupted by some efforts at coughing, but the sick child has begun again to sleep as if nothing had happened. In a few more obstinate cases I have added a spoonful of one per cent. solution of chloral hydrate.

As a third medicament in the way of reconstituant, we recommend a change of air. Very few medical prescriptions have injured humanity more than this. Many families have brought their children from a city to a village, and obtained neither health nor improvement, but they have spread out the disease to greater distances, and thus successively caused very many communities to be distressed by the epidemic at the same time. To take children to the country is a privilege only of comfortable families, who possess isolated country seats, well ventilated and agreeable, with sound and excellent alimentation. For the great majority of families nothing is better than good food and air.

Malaria in Children.

Dr. Beverly Robinson has the following to say in the Medical Record concerning the manifestation of this disease in the young:

It has always appeared to me that the characteristic behavior of a child suffering with malaria is very valuable in aiding us to make a correct diagnosis. It is no infrequent experience for me to be told by the mother or guardian that a small child who had been bright and gay, romping, playing, talking, laughing, almost immediately became languid, quiet, and indifferent, averse to movement or conversation, with or without rise of temperature. A sudden change from the appearance of happy, exuberant health and spirits to a condition of morbid feeling and action without apparent cause, is certainly very striking and often means malaria. After an hour or two of this protracted condition the child will ordinarily begin to notice and play around,' slowly at first, but little by little with all its energy and abundant *entrain*. There may be no evidence of chill, no sweating; sometimes fever, sometimes none; no marked digestive disturbance, no cutaneous manifestations. "Malaria," writes Dr. Holt, "is more frequently overlooked in young children than in later life, from the fact that its forms are more irregular." In this way the impression has become pretty general that children are less liable than adults to have attacks of malaria. The contrary is doubtless true, and certainly in my experience, as in that of Holt, children from these manifestations are frequently met with. By means of calisaya bark repeated several times a day in appropriate doses for a week or more, all previous symptoms of malaria will disappear completely. Occasionally there will be no reappearance of these manifestations for many months. If the slightest cold be taken, or if there be overfatigue or indiscretions of diet, another outbreak may at any time occur. Speaking in regard to children, Holt writes, "Malarial attacks are particularly liable to occur when the general health is reduced by derangement of the digestive organs." I have no doubt of the truth of this statement, but it is also true and even more so than with the adult, that digestive disturbances are frequently directly caused by the presence of the malarial parasite and can be cured only when this is recognized and properly treated. My experience of many years of summer practice, when I have taken care of numerous children, has convinced me of the importance of this. These cases are not always apyretic. On the contrary the temperature will frequently rise several degrees in a short time, and we are often in legitimate doubt after the most careful inquiry and research as to the nature of the disease. In summer practice, by the sea especially, such cases are frequent, but fortunately certain manifestations of malaria are there readily discovered.

Thyroid Treatment in Insanity.

Gerver (Obozrenye Psychiatriek) has tried the effect of Poehl's thyroidin in ten cases of insanity. The patients included three cases of acute primary dementia, three cases of melancholia, one case of recurring mania, one case of delusional insanity, one case of organic lesion of the brain and one case of epilepsy. To begin with two grains of thyroidin were administered twice daily, and the dose gradually increased to ten grains given three or four times a day. The treatment was continued for about six weeks, but in one case, that of organic cerebral lesion, it had to be discontinued earlier, as it caused too much gastro-intestinal disturbance. The result of the trial was disappointing. Only two of the patients benefited by the treatment, and even in them some doubt was felt whether the improvement was due to the thyroidin or whether it occured in the natural course of the disease. The successful cases were one case of melancholia in a lady, aged 72, in whom the disease disappeared a year previously without any thyroidin treatment, and the case of delusional insanity in a middle-aged man, who stated that he felt the strong stimulant effect of the thyroidin. During the treatment some peculiar physiological effects of thyroidin were observed in all the patients. Their pulses were increased, and they all lost weight. The temperature, sleep, or appetite were unaffected. Salivation was observed in one case, and twitchings of the facial muscles in another.

The End of the Human Race.

D. G. Brinton, University of Pennsylvania, says: One of his learned and thoughtful articles is contributed on this subject by the Marquis de Nadaillac in a recent number of the "Correspondant." Making anew the calculation of the increase of population as compared with the increase of the food supply, he reaches the gloomy conclusion that in a few centuries there will inevitably be too little food to supply all the mouths. He compares the statistics of most civilized nations, and they appear to confirm his apprehensions. For instance, Russia alone, at its present rate of births, will in one hundred years be obliged to feed eight hundred million persons! What, he asks, can stem this overwhelming tide of population? He gives up the problem, and says that we must leave it to God, a solution which is more creditable to his piety than to his position as a scientist. The real solution is to educate men and women to the point where they will not recklessly produce offspring; nor yet ruthlessly prevent them, as is the case now in some departments of France, where the population is actually diminishing, although the wealth is above the average. Unfortunately, modern prejudice stands in the way of a fair and full discussion of this solution.

Drainage for Abdominal Cavity for Ascites

B. Merrill Rickets (Cincinnati Lancet-Clinic) calls attention to a class of pathological conditions which has from time immemorial been treated medicinally, but which the writer thinks should be dealt with surgically, viz., fluid in the abdominal cavity abnormal in quality or quantity. In fact, all cavities containing fluid should be dealt with surgically. But this discourse is limited to the abdominal cavity. He relates his experience with three cases, the first one of chronic hepatitis, which lived eighteen months after the operation; the second of cardiac dropsy, which lived thirteen weeks; the third of Bright's disease, which lived ten weeks. Not only was the ascites relieved, but general edema was also. The first two cases died "suddenly," the last of empyema.

Disturbances of Cardiac Rhythm in Gastric and Intestinal Disorders.

Tedeschi (*Rif. Med.*, 1897) has studied this subject in 16 cases of gastric or intestinal disease. In 7 of these cases the patients were liable to attacks during which they complained of a sense of impending death, a failure of respiration, and a pain over the cardiac area. The patients were for the most part young or middle aged, and were in other respects well and of good family history. No disease of the heart, vessels, or lungs could be discovered. The attack usually came for the first time in bed just on getting to sleep; sometimes it aroused the patient in the middle of the night. The attacks are usually followed by moderate polyuria. During the paroxysm the author was able in some cases to make out an increase in the transverse diameter of the cardiac area, indicating a transitory and acute dilatation of the heart. In order of gravity the cardiac disturbances met with were: (1) Arrhythmic vertigo of the heart, sudden, and transitory. (2) Confirmed arrhythmia, more serious and more lasting. (3) Arrhythmia, pseudo-anginal, paroxysmal. As to the cause, the author believes they are due to an autointoxication of gastric or intestinal origin, determined by defective motility of the stomach or intestine, perverted chemical action or diminished elimination of toxic products.

Paresis from Syphilis.

Practically 75 per cent. of all cases of general paralysis exhibit proof of primarily syphilitic infection (American Medical and Surgical Bulletin). The history of all cases is the "typical man of the world"—ambitious, fond of society and high living, a light sleeper and a heavy drinker; then come delusions and well-marked paresis. The pathologic conditions in chronic inebriety, syphilis and paresis are alike. The thickened membranes and meningeal changes are the same. The nerosis which predisposes to insanity, paresis or inebriety may be of syphilitic origin. A history of using alcohol exists in most cases of paresis, and it is significant of contributing causes not yet studied.

As a memorial of the Queen's Diamond Jubilee the Americans residing in England have endowed a bed in perpetuity in each of the five leading London hospitals, each bed being endowed with the sum of £1,000. The beds will be especially for the use of Americans, but other patients may be received if all the Americans are well.

Diagnosis of Nasal Polypi.

Dr. Hunter McKenzie writes in the London Lancet as follows:

The diagnosis of nasal polypi may be rendered obscure by their situation, by their size, by certain peculiarities in the internal configuration of the nares, or by combinations of these. When a polypus develops in the posterior region of what is frequently an abnormally narrow nostril, it may not be readily discernible even on effective illumination of the nasal cavity. It may be obscured by, or may simulate, a little mucus, and even when this has been blown away by the patient or mopped out by the surgeon it still may escape detection. Fortunately there is one test which materially aids in the diagnosis of polypus of the posterior nares. Such a polypus, growing as it does from the roof and hanging in the posterior and roomier part of the nose, is usually pedunculated and moves freely on forcible respiration. Hence if the patient be instructed to firmly close one nostril and blow forcibly through the other the polypus will be distinctly observed to advance and recede with expiration and inspiration, and not unfrequently during inspiration it disappears entirely from view. The polypus, in fact, acts as a valve, usually permitting inspiration and impeding or completely preventing expiration, and I consider that a patient who presents this symptom is bound to have polypus in his posterior nares. It is certainly a valuable aid in diagnosis and I have repeatedly met cases in which the presence of a mucous polypus in the posterior nares was overlooked until the application of this test. This mobility with forced expiration is, as you will presently see, a feature of considerable value in treatment as well as in diagnosis.

The region of the middle turbinate body and the superior meatus of the nose are localities where small mucous polypi may also not be of easy detection. You are aware that these are the favourite areas for the development of polypi, which, when large, grow downwards and become prominent objects in the nasal cavity. When of small size, mere buds in fact, and nestling in the clefts and recesses which are usually present in these regions, they are very liable to be overlooked. In order to discover them it is necessary in the first place to clear away any mucus or pus that may be present and then make gentle use of the probe, by means of which they can be more or less freely moved. It is important to remember that the small buds in this region, being sessile and lying outwith the main respiratory tract, do not respond to the test of moving with forced respiration as in the case of the post-nasal variety. Another cause of the failure to detect nasal polypi is the fact of their being situated behind bony or cartilaginous projections from the walls of the nasal passages or marked deviations of the septum, and I have repeatedly seen cases in which polypi could be seen and treated only after removal of these abnormalities. Again, one may meet with instances in which certain of the above conditions are combined, such as post-nasal growths or supra-nasal buds with congenital narrowing of the nares or projections of their walls. Sometimes the nostril may be represented by an anterior and posterior chamber connected by a narrow slit caused by a septal deviation and forming a sort of hour-glass arrangement with polypi in both chambers. At other times one nostril is markedly widened at the expense of its fellow. In the latter case polypi in the one nostril might be diagnosed and treated with comparative ease and the very reverse in the other.

Precocious Menstruation.

F. J. Clendinnen (American Gynecological and Obstetrical Journal) reports the following case with skiagram demonstrating premature osseous development: The mother states that the child, now 8 years of age, began to menstruate between 3 and 4 years of age, and has been regular every month since, excepting two. Menstruation lasted three days, two diapers being used daily. Child's height is four feet eight and one-half inches; weight eighty-one pounds. She looks like a child of 11 or 12 years. Her breasts are developed as fully as those of a girl of 17 or 18. Hair on pubis is fully developed and also that of the axila. The skiagram shows the proximal epiphyses of the phalanges, and the distal ones of the metacarpal bones all completely united to the shafts, and the ossification of the carpal bones also complete, as is also the sesamoid bone. There is a faint trace of the epiphyseal line at the proximal end of the thumb metacarpal, and the lower epiphysis of the radius is united on its outer side. The appearances are just those seen in the skiagram of the hand of a female 18 years of age.

A Kindergarten Surprise.

Teacher—Now, children, we will have our verses. First Small Child (repeating verse)—He that hath ears to hear let him hear. "Very good. Now the next little boy." Small Boy (taking his cue)—He that hath a noth to shmell let him shmell Great confusion among the kinders.

Vesical Tumours.

Barling of England, in the London Lancet related the following four causes of Vesical Tumour which had recently been under his care, and showed the specimens. The first was a case of recurrent fibropapilloma. A woman, aged thirty-five years, was admitted to the General Hospital on Nov. 1st, 1897, complaining of great pain in passing urine and of blood in the urine. This patient had been operated upon four years previously for papilloma of the bladder and she had remained quite well for rather more than three years. The growth at the first operation had a rather broad and almost sessile attachment to the left side and floor of the bladder. The first symptom of recurrence was hæmorrhage and at the end of about three months frequency of micturition and discomfort in the act began to be felt. These symptoms all increased until micturition became very frequent and the pain extreme; eventually practical incontinence was produced. Suprapubic cystotomy was performed on this occasion as on the previous one and the cavity of the bladder was found to be filled with soft growth arising from the site of the previous tumour and from the posterior wall of the bladder as well. There was no induration or ulceration at the base of either growth and both were removed mainly by Thompson's forceps and by nasal polypus forceps. The hæmorrhage was so severe that the patient was rather collapsed at the time, but she made an excellent recovery, her comfort being greatly added to by the use of Sprengel's pump to drain the bladder, by which means her dressing was kept dry. Her case at the time of her first operation was an illustration of the value of the cystoscope in diagnosis. The patient had suffered from hæmaturia for a long time and on going to a hospital had been sounded for stone. None being felt the bladder was washed out, upon which cystitis followed. What with pain, frequent micturition, and hæmorrhage she was worn to a shadow and looked like a patient with advanced malignant growth. The cystoscope showed at once the cause of her trouble, and after removal of the tumour she was restored to excellent health and condition again. The second case was one of pedunculated papilloma in a man, aged forty-five years, who was admitted to hospital on Nov. 4th, 1897, complaining of frequent micturition and of pain during the act. He noticed a year previously a little blood in his urine; this increased in quantity but was intermittent in character. At the end of a few months frequent micturition in the daytime came on, then pain and occasional sudden cessation of the stream of urine. The cystoscope showed a pedunculated papilloma on the floor of the bladder just behind the left ureter. Bimanual examination failed to show any infiltration or thickening of the bladder wall. The prostate was found generally enlarged. Suprapubic cystotomy was performed and a small pedunculated tumour removed by ligaturing its pedicle and snipping off with scissors. As in the last case Sprengel's pump was used to great advantage. The third case was one of sessile patches of papilloma. A man, aged thirty-six years, was admitted to the General Hospital on Dec. 30th, 1897, complaining of hæmaturia. He had been an invalid and unable to follow his occupation for some years, and during the last two months he had suffered constantly from hæmaturia and at the same time from dropsy. On admission the patient was very pale and anæmic, his urine ran away from him almost constantly, his legs were œdematous, there was a large quantity of blood in the urine, and his pulse was very feeble. Examinations per rectum showed that he had a generally enlarged prostate. The patient was far too ill for complete investigation of his case and died of cardiac failure two days after admission. Post mortem small patches of sessile papilloma were found in the bladder and a large prostate. As far as could be determined the papilloma was the source of the hæmorrhage. The patient had marked cirrhosis of the liver. The last case related by Mr. Barling was a case of epithelioma. A single woman, aged sixty-three years, was first seen in September, 1897, complaining of hæmaturia, of which she had had several attacks in the preceding three months. Examinations with the cystoscope showed a growth of about the size of a shilling on the floor of the bladder behind the trigone. Its surface was covered with papillæ, it was quite sessile and was commencing to ulcerate at its margin. Examinations of the urine showed that it had a high specific gravity and contained sugar but there was no thirst or polyuria. It was believed that the tumour, although malignant, was just within reach of excision, but the condition of the urine and the rather senile condition of the patient made the operation hazardous and she was advised not to undergo operation unless pain or other symptoms became troublesome. In November, pain in micturition began to trouble the patient and increased in severity whilst at the same time increase in frequency in micturition arose until it became almost incessant and the hæmorrhage remained persistent and severe. On Dec.

30th the patient was admitted to hospital seeking relief if operation were feasible. Examination with the cystoscope showed that the growth had hugely extended and was widely ulcerated, whilst bi-manual examination showed that its base had infiltrated until it fixed the bladder firmly to the front of the uterus. The patient died of respiratory failure during the administration of chloroform whilst she was being examined. It might be mentioned that the sugar persisted in the urine. Post-mortem examination confirmed the clinical examination, showing a widely ulcerated epitheliomatous growth, very fixed, and so extending through the coats of the bladder that the omentum was adherent. There was no infection of glands. The main features of these cases and the earliest subject of complaint on the part of the patients was hæmaturia. In the first case cystitis was eventually associated with it and this appears to have arisen from the unfortunate treatment of washing out the bladder, a method often resorted to with very little justification. In the second case the symptoms of very painful and frequent micturition gave rise to the belief that the tumour might be malignant until cystoscopic examination negatived this. It is probable that both these symptoms and the occasional sudden cessation of the stream of urine were due to the floating of the tumour into the vesical orifice and its becoming engaged therein. In the third case the hæmorrhage was most profuse and confirmed the observation not frequently made that the amount of hæmorrhage is no criterion of the size of the tumour.

A Few Words on the Nursing of Children Having Diphtheria.

Thomas (Der Kinderarzt) does not believe that the treatment with antitoxine injection alone is sufficient, but recommends as well the carrying out of all rules of general therapeutics in vogue before antitoxine treatment was employed. It is necessary in the first place to administer a roborant diet. The cleansing of the mouth and nose with a 1 to 2 per cent. solution of salicylic acid is to be recommended, it being of great value for the removal of secretion and pseudomembranes. A bath of lukewarm water also should be administered, for the preservation of the function of the skin is of great importance. The diet of a child suffering with diphtheria is at all times an important problem, as it frequently happens that children will not eat or drink for days together, and occasionally a case is met with which dies for want of food, although the disease has been cured.

Finally, as the after affects of serum therapy frequently cause some anxiety, it devolves on us especially to feed the children mainly with milk during the first few days, on account of the danger of the occurrence of nephritis. As most children who are fed on milk in scarlatina escape an attack of nephritis, this measure should be also brought into use in diphtheria. It insures the normal action of the kidneys, and represents at the same time an adequate nourishment. Metabolism is accelerated by treatment with serum. Dr. Valette has shown that the urates and phosphoric acid are greatly increased. It stands to reason, however, that we should endeavor to diminish as much as possible the work of the kidneys.

Posture in Percussion of the Heart.

Observations on the "size" of the heart which have from time to time been made on patients undergoing treatment by baths and exercises have raised many questions, which cannot yet be regarded as definitely answered, in regard to the cause of the rapid alteration in the area of the cardiac dulness which has so often been observed. While some people have accepted unreservedly the idea that the heart may undergo rapid alteration in its size, and presumably in the capacity of its cavities, others have thought these observations must be taken as showing that the heart is a far more moveable organ, and that its relations with the chest wall are far more variable, than many have imagined to be the case.

Dr. Paterson, of Cardiff, has published in the British Medical Journal some very interesting observations on the effect of posture in percussion of the heart, which show how great is the influence of gravity on the position of the heart, and on the area of the chest wall with which it comes into contact. It would seem, in fact, that in consequence of our always examining the body after death in the supine position, we are apt to get very false ideas as to the position of the heart during life. By making sections of dogs killed and immediately frozen in different postures, Dr. Paterson has shown that in the supine position a very large area of what in man would be the anterior surface of the heart comes against the chest wall, whereas when lying on the back the portion in contact is very small. When in the left side position, although the whole mass of the heart moved to the left, the amount of the surface in apposition was not increased.

Intestinal Obstruction.

In an introductory address on "Operation in Intestinal Obstruction" (Medical Age), delivered by Sir Wm. Thompson, President of the Royal College of Surgeons, Ireland, before the Surgical Section of the Royal Academy of Medicine of Ireland at its recent meeting, the speaker said the initial difficulty which we encounter is, that there are so many conditions threatening life which present symptoms of an almost identical character. We are accustomed to take three of these as very typical—pain, vomiting and constipation—and as practically constituting a guiding trio.

These, however, cannot be relied upon solely, but other elements must be sought to aid us: The age of the patient, an antecedent history, the condition of the abdomen, the amount of distention, whether the constipation has been chronic or has been gradually increasing, the character of the urine, the quality of the feces, the temperature—which is not very reliable—and the actual constitutional state of the patient as indicating collapse or shock.

In the consideration of the symptoms vomiting comes first, being by far the most important. The character of the excreta must be carefully considered to determine whether or not it be stercoraceous.

A good working rule which has been laid down by Mr. Greig Smith is, that if vomiting has occurred three times no time should be lost in operating. Of course there is no special value in the number; it only gives a reasonable time to make the character of the symptom clear.

Pain is of value in locating the trouble within the abdomen, but it rarely indicates the actual site of the obstruction. In chronic obstruction it is never severe and differs from the acute affection, which is quite intense and comes on suddenly.

The temperature is too misleading to place any reliance on, whatever, nor can we depend very much upon constipation. To these we must add the general condition of the patient, the character of the facial expression, and the collapse which in some form is always present and is ever progressive.

The greatest value must, however, be placed upon the stercoraceous vomiting, but we should not fail to avail ourselves of every possible corroborative element.

Time spent in medical treatment is only time lost. When the character of the case is certain there is only one thing to be done, and that is to explore. It is not the opening of the abdomen that kills; it is the fact that this is usually done when by delay everything is arrayed against success.

Fruit as a Food for the Aged.

A writer in the Life Bulletin says:

Sir Isaac Holden, who recently died in his 91st year, was neither a teetotaler nor a non-smoker. Sir Isaac was a man with theories. According to him the two great essentials for those who would live long and be healthy, are plenty of fresh air and plenty of fruit. His rule was never, if he could help it, to spend less than two hours a day in the open air. When he entered his first situation he said to his employer that he would be glad to have an hour daily in the afternoon for a walk. If granted he would not ask for any holiday, or would make up otherwise for the time so spent. This was agreed to. Sir Isaac took his walk daily, and to this, he used to say, he owed both health and fortune. In addition to fresh air he believed in plenty of fruit. Sir Isaac was not a vegetarian. It was not meat but bread from which he abstained. Like Wesley, whose "Natural Philosophy" he studied when a boy, he saw in farinaceous food a thing to be avoided by the elderly. "I take for my breakfast," he said a few years ago, "one baked apple, one orange, twenty grapes, and a biscuit made from bananas. My midday meal consists of about three ounces of beef or mutton, with now and again a half cupful of soup. If I take a little fish, I take so much less meat. For supper I practically repeat my breakfast menu." The orange was his favorite fruit. Wine he eschewed; but on returning from the House of Commons to Queen Anne's mansions he had a tumbler of whisky and hot water before going to bed. He took no drink with his food, and this obliged him to masticate well. He smoked two or three cigars a day, from which he used to say that he derived both comfort and benefit.

Medical Incredulity.

Practitioners of the healing art, says the International Journal of Surgery, nearly always appear to be divided into two camps: the one composed of those who readily believe all that is brought to their attention, especially when stamped with novelty and a foreign mark, and the other consisting of doubting Thomases who scarcely believe the evidence of their own senses. To steer between such a Charybdis and Scylla is no easy matter, and even those who try conscientiously to do so are apt to fall at times to one or to the other extreme.

The best course to pursue is undoubtedly to accept no evidence until it is very conclusive, or, at any rate, to move with extreme caution in paths over which there still reigns a certain amount of obscurity. Some are always found, however, who carry their disbelief to such an extent as to deprive themselves, at any rate, for a long period of time, of measures that are proving of the utmost value in other hands. It is a strange fact that in some of the most scientific minds disbelief assumes a character of chronicity, and that in other minds, less scientific, we often find disbelief connected with an astonishing want of knowledge in regard to certain subjects. We find among our ranks, for instance, a large number of men who are amazingly incredulous in regard to the action of drugs, and here we very often see the coexistence of a lamentable lack of scientific therapeutical knowledge. The use of drugs is not as important, in medicine, as the laity always deems it to be, yet an accurate acquaintance with their uses and possibilities is of immense assistance to the physician.

Death of Dr. Joseph O'Dwyer.

Dr. Joseph O'Dwyer died at his home in New York city on the evening of January 7th, 1898, after a brief, though painful, illness. He had gained a world-wide reputation by his discovery of a safe and reliable method of intubation in diphtheria by which thousands of children have been saved. He was born in Ohio, in October 1841, but passed his early life in Canada. His academic course was completed at Mc.-Gill University, Montreal, and his medical course in New York city, where he graduated from the College of Physicians and Surgeons in the class of 1866. After graduation he served a term as interne in the City, then Charity, Hospital, and afterwards as examining physician at Bellevue Hospital. He was a member of many local and national medical societies, an ex-president of the American Pediatric Society, and was attending physician to the New York Foundling Asylum and to St. Vincent's Hospital, and consulting physician to the Seaton Hospital.

Turpentine as a Remedial Agent.

James B. Walker, (Ther. Gaz.)—The author calls special attention to the value of turpentine in subacute and chronic catarrhs and as a hæmostatic. He considers that the chief causes of the neglect into which this remedy has fallen have been the large dose formerly employed (half an ounce), and its administration as a distasteful emulsion. In gastric cases with decided irritability it is best given in suspension, not as a gummy emulsion, but in the form of a mixture to be made at the bed side by stirring from two to ten drops of oil of turpentine in an ounce or two of water well sweetened with saccharum anisi of the German pharmacopœia. The sealed capsule is to be preferred in cases in which irritability is not a marked symptom. The author finds it of great value in hæmatemesis due to gastric ulcer, and also in that arising from chronic alcoholism. It is of equal value in subacute and chronic catarrhal conditions of the gastro-intestinal tract. In catarrh of respiratory system, with free secretion, its value is exceptional. In the catarrhal conditions of phthisis its remedial effects are easily appreciated, and it ranks with creosote and guaiacol. In the hæmorrhages of phthisis it should hold first place among drugs. The author believes that in small doses in cases of chronic catarrhal nephritis which are under close observation it is often beneficial. In chronic cystitis and in urethritis it is of extensive usefulness. In hæmaturia and in some cases of metrorrhagia it is a valuable hæmostatic.

Aged Parents.

A woman in Toronto who is over sixty years of age gave birth on January 21 to a baby girl. Her husband, to whom she was married seven years ago, is seventy-eight years of age. The mother has been married twice, and this is her twenty-second child. The day after this, not to be outdone by any foreigner, a woman sixty-five years old, living in Oklahoma, also gave birth to a baby girl. This mother has also a number of other children, ranging in age from thirty-five to forty-five years. Some of the male sex have, as might naturally be supposed, better records than this. A Tyrolese gentleman named Parravicini is reported to have married at the age of eighty-two years, and to have been the father of seven children, the last of whom was posthumous, his father having died at the age of one hundred and four years. Juba, king of Mauritania, is believed to have died at the age of ninety-one years, leaving a posthumous child.

A Polish physiologist, Dr. Jasiewicz, says the British Medical Journal, has gathered together some statistics which seem to show that the immunity from vaccination in infancy lasts a much shorter time than is commonly supposed. In the case of twenty-three children under 6 years of age vaccination was successfully performed in seven—35 per cent. Jasiewicz, therefore, recommends more frequent revaccination in childhood, and especially in early childhood. He believes that it protects from other infectious diseases as well as variola.

Diphtheria Antitoxin.

McAlister, writing in the New York Med. Journal, says:

The writer comments on the extensive use of the antidiphtheritic serum within the past few years, and notes the marked and significant withdrawal of the fierce opposition that met its first introduction into therapeutic science. The serum he regards as a specific in the full sense of the term, and he quotes Holt in support of his statement. Investigation has shown that, under antitoxin treatment, seventy-three per cent. of operative cases of laryngeal diphtheria recovered, and that only thirty-nine per cent. of cases so treated required operation; while under calomel there were only twenty-seven per cent. of recoveries, and ninety per cent. required intubation. Unsatisfactory results are, in many cases, due to a weak antitoxin, while a reliable and concentrated product given in suitable doses, and repeated, if necessary, within twelve hours, will reduce the general mortality of diphtheria to less than four per cent., and that of laryngeal diphtheria to less than ten per cent. The fear of untoward results from the injections of serum is utterly groundless, for of the upward of two million injections made in all parts of the civilized world, it is admitted that only five deaths occurred that could not be satisfactorily explained, and, on the other hand, they cannot be proved to have been caused by the serum. A great deal of the success of the serum treatment depends on the proper adjustment of the dose, and the author recommends the following rules: In ordinary pharyngeal cases, one thousand units to be given immediately on making a diagnosis. If the case comes under observation late, or if the disease is laryngeal or one of membranous croup, double this quantity must be administered; and in every case, if the disease is not arrested or there is evidence of an insufficient amount having been given, the dose is to be repeated or doubled within twelve hours.

Constipation and the Corset.

In a clinical lecture recently delivered by Dr. Seymour Taylor on Some Common Ailments, an interesting observation is made in regard to what is perhaps the commonest of all the ailments from which modern woman suffers—namely, constipation. Dr. Taylor has no doubt that this is largely due to their method of dress. The corset is not a compressor of the chest so much as of the abdomen, and this continuous pressure retards that peristaltic action which is necessary if a daily action of the bowels is to be secured. The worst cases of constipation which he has met with have been amongst the young ladies who have to study their figure and their appearance, such as those who are working in milliners' shops, as well as among ladies in the higher walks of life. Rich people, especially young people, do not suffer from want of exercise. They have horse riding and plenty of games, yet the womenkind suffer greatly from constipation, the reason in the majority of cases being the corset. This appliance would also seem to be the cause of the pain in the flanks which is so often complained of. The course of the colon is distorted, so that flatus accumulates and causes much distress. Giving up to the use of the corset, then, is likely to add greatly to the efficacy of any treatment which may be recommended for the constipation. Now, as regards treatment, Dr. Taylor recommends caster oil in small doses, and says that it is not necessary in ordinary practice to prescribe a more severe remedy. By giving a drachm of castor oil, fasting, the bowel may be coaxed into its proper action; but the oil must be continued for several weeks. If this does not succeed, a small quantity of croton oil may be added to the castor oil, say one-sixth or one-quarter of a drop in each drachm. Dr. Taylor then goes on to give many details about the general treatment of constipation, but the matters to which alone we here wish to draw attention are the causation of constipation by the corset, and its treatment by small repeated doses of castor oil—a proceeding which is to a large extent shorn of its terrors when once the art of swallowing capsules has been attained.

Clinical Teaching.

The most zealous church-goer could hardly force himself to listen to from four to seven hours' long sermons daily, six days in a week, says the Cincinnati Lancet-Clinic. It is almost as hard upon the poor medical student, squirming in his hard chair, endeavoring, often vainly, to open his ears that he may hear the sapient words that flow so smoothly, so evenly, so uninteruptedly, as lecturer after lecturer saunters gracefully in to deliver his several liters of book-conned wisdom. Is it any wonder that the worn-out student protests occasionally against such pressure? It would be strange if he did not. Is it any wonder that Dr. Osler starts his young man on his way only after some hospital—any hospital—service has expired? The ancient idea that a man can be made a doctor by listening to two or three courses of lectures, 90 per cent. of which knowledge he can as easily obtain from his text-books, has been long ago exploded. It is experience that makes the physician, and his experience can only be gained by the intelligent study of cases; to the student this means personal examination under a competent instructor, of the patients who present themselves at the clinics and hospitals. The few words or explanations occasionally offered by the clinician at the bedside, to demonstrate a symptom, are of more good than a whole course of lectures. The students walking the wards of the City Hospital to-day and attending the clinics are authority for this statement.

A Revival of Bleeding, Emetics, and Blisters.

At a recent meeting of the Academy of Medicine, in Paris, M. Robin pleaded hard for a revival of the use of three therapeutic agents which have almost completely dropped out of use at the present day—namely, bleeding, emetics, and blisters. In cases of pneumonia, uræmia, and morbus cordis the letting of blood increases nitrogenous changes in the tissues, increases the oxidation of the products of disintegration, and assists chemical action in the nervous system. It also increases to a considerable degree the changes brought about by respiration and is a method of general oxidation which should not be neglected in cases of cardiac weakness, pulmonary œdema, malnutrition and toxæmia. Emetics in the treatment of pulmonary diseases are gradually being replaced more and more by antisepsis of the bronchi, but it must not be forgotten that besides their action upon the respiratory tracts emetics have an oxidising effect consequent upon the increased respiratory movements which they bring about. This action of emetics upon chemical change in the tissues was a reason for M. Robin to urge their reintroduction into practice, and he considered that emetics were just as useful in bronchial affections as pugatives in gastro-intestinal cases. As for blisters M. Robin agrees with M. Ferran and considers that they augment phagocytosis and increase nervous influence. They also aid respiratory movements and have an undeniable action upon respiratory chemical action which M. Robin considers very useful in pulmonary congestion, pleurisy, and pneumonia. M. Trasbot held that bleeding and emetics were excellent therapeutic agents in veterinary medicine. M. Huchard agreed with M. Robin as to the value of bleeding and emetics, but with reference to blisters he considered that there were several objections to their use and that these ought to be clearly set forth in the interest of patients themselves who often clamoured for the application of blisters, and that there were cases where their use would be very doubtful or even might be attended with fatal consequences, while M. Laborde pointed out that blisters sometimes brought on nephritis.

Medical University Extension.

It appears that the Medical Society of the State of Pennsylvania has systematised a movement deserving of hearty support. The society issues a list of physicians, largely teachers, who are willing to lecture or to hold clinics upon given subjects before county societies in all parts of the State. The local society applies to the chairman of the State committee and pays only the travelling expenses of the visiting lecturer. The latter gives his service and his time. Many of the county physicians do not in years meet their fellow practitioners from cities and different parts of the country, but this movement gives them an opportunity to hear and become acquainted with the specialists and teachers of repute and to freshen their knowledge of recent medical problems and practice.

Ignorance of the Young Regarding Sexual Matters.

It is an unfortunate fact that any one who broaches the subject of sexual matters, be he physician or layman, is branded as impure in his thoughts and intentions. Let any physician publish accounts of sexual perversions, sexual dangers, matters concerning sexual health, and many (even in the profession) hold up their hands in horror, because in order to make the subject intelligible without inventing a language for the sole purpose of expressing thoughts on sexual subjects the English language is employed and clear statements made by which the author is enabled to express his meaning. It seems to me that just here is where the reform should begin that will ultimate in such a knowledge of the existence of syphilis and other venereal diseases and of their method of propagation and prevention being disseminated as will confine those diseases to the smallest possible number of human beings—it may be to those whose carelessness and recklessness entitle them to no better fate. Sexual matters should be investigated with a scientific accuracy, so that physicians, parents and educators could teach facts to the coming generations, facts of which it is the right of every developing individual to become cognizant through the teachings of those whose age and experienee enable them to speak *ex cathedra*. No one who hears me tonight, I am sure, can point out an educator under whose care he has fallen in his young days who knew, much less taught, his proper relation to the opposite sex. Not one of us, I feel certain, would be willing to say: "My father or my brother took me aside and instructed me concerning sexual dangers and proper sexual gratification."

Mr. Christopher Heath on Medical Education.

"But seriously, are we not overdoing the scientific teaching of the man who has after all to get his living as a practitioner of medicine, surgery, and midwifery? When the medical curriculum was lengthened by a year it was hoped that the additional time would be devoted to clinical work, but I fear that this is by no means always the case, for it is not uncommon for the student to take three years in passing his primary examinations, with the result that but two remain for the study of medicine and surgery. When I became a student of medicine I took to heart the advice of my teacher of physiology, William Bowman, and never allowed a day to pass without visiting the hospital; and though as a lad of 16 I failed, of course, to appreciate the importance of all that I saw, yet I saw it, and I can carry my mind back now to cases seen and lessons learnt in the early Fifties which are of service to me at the present time. But the student is practically forbidden to enter the wards now until he has satisfied the examiners in anatomy and physiology, which he may or may not do in two years, and then there are but three years left for him to study *totam rem medicam*.

Secret and Proprietary.

There seems to be a great misunderstanding and misuse of these two terms. (Philadelphia Medical Journal.) Some persons use them as if they were interchangeable, and even make the word nostrum synonymous. It would appear unnecessary to say that everything that is advertised must be owned by some one, have somebody as proprietor, i. e. be "proprietary" in order to have someone to pay for the advertisement. Chairs and bicycles and cod-liver oil if they have the distinctive name of a certain maker attached to them, are proprietary preparations. We have heard copyrighting spoken of as if it were something wrong and shameful, whereas in itself it has no ethical significance whatever. It is only a brand of the manufacturer. It is the possible secrecy of the copyrighted article, or the abuse of the method of copyrighting, that makes wrong. In reference to drugs, for example, the manufacturer may conceal the nature of the ingredients, and such things then become secrets; in this case we say it is unprofessional to use them or to advertise them.

Tic Convulsive.

Dr. S. C. Wilson reports in the Archives of Pediatrics for December the following case of a boy 15 years old who had been affected with this disorder about three years.

The paroxysms consist of a definite series of movements accompanied by inarticulate sounds. The movements and sounds are always essentially the same but differ in intensity and duration. and are more frequent when the boy is aware that he is being watched or examined. Photographs illustrate the nature of the movements. The patient's mental faculties became impaired about a year after the beginning of trouble; he was restless, irritable, passionate, unable to study or to play with his companions. Treatment in the hospital by nervous sedatives—chloralamide at first, followed by hyoscine—rest in bed, an abundant diet consisting largely of milk, and then the administration of chloral, resulted in marked improvement.

Hydrophobia of Long Incubation.

Felt and Archambaud (Medical Record) have reported the case of a man, twenty years of age, previously in good health, who, after several days of dissipation, was seized with chill and difficulty in respiration. The temperature was normal, the pulse not accelerated. There was complaint of pains radiating from the sternum and difficulty in swallowing. In a short while the face became pale, the expression terrified, the eyes deep. There was intense dyspnea, with pharyngeal spasm and inability to swallow; also precordial pain, radiating toward the left arm. After awhile furious delirium set in and sanguinolent froth was ejected from the mouth. Respiration and pulse became accelerated, the pupils dilated, cyanosis of hydrophobia was made, and on inquiry it was learned that the patient had been bitten on the lip six and one-half months previously by a rabid dog.

"No, Willie," said mamma, "no more cakes to-night. Don't you know you cannot sleep on a full stomach?"

"Well," replied Willie, "I can sleep on my back."

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IMPERIAL GRANUM has stood the test of many years, while many competing foods have come and gone, and have been missed by few or none. But it will have satisfactory results in nutrition far into the future, because it is based on merit and proven success in the past.—*The Pharmaceutical Record, N. Y.*

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Hot and Cold Applications to the Spine in Pulmonary Affections.

Beverly O. Kinnear (Brooklyn Medical Journal) in discussing this subject says:

When heat is applied over the sympathetic ganglia, by a spinal hot water bag, a contraction of the arteries takes place in that region of the body controlled by the centers over which the bag is placed.

Hyperemic headaches can frequently be relieved by placing the bag filled with water at 115 deg's. F. over the cervico-dorsal region, or from the line of the hair to the fourth dorsal vertebra. Nasal hemorrhages, as well as pulmonary ones can be quickly overcome by placing the bag over the same region in the former case, and over the dorsal vertebræ in the latter. When used over the dorso-lumbar vertebræ, bleeding from the bowels, the uterus, or the bladder may be quickly subdued; and in surgery the troublesome capillary oozing may be rapidly overcome. Too hot water must not be used; no heat greater than 115 deg's, or 120 deg's. F. will be found serviceable, and it is dangerous when applied over the dorsal region when hotter than 115 deg's. F., on account of the rapid contraction of the coronary arteries in cases of heart disease, or a weak heart.

In hemorrhage of phthisis, and in attacks of pleurisy, the author has found no agent its equal in controlling the hemorrhage and and aborting the inflammation. It should never be continued after relief has been obtained, but on a return of the symptoms may be re-applied. In acute phthisis, bronchiolitis, or pneumonia, it can be applied with benefit three or four times a day for thirty minutes at a time, over the dorsal region, until the temperature become normal. In a case of phthisis presenting the preliminary symptoms but not the physical signs of disease, the application of heat over the dorsal region twice a day for thirty minutes combined with the inhalation of oxygen will immediately begin to ameliorate the symptoms, and at the same time stimulate general nutritition. Heat over the dorsal sympathetic ganglia contracts the arterioles in the minute bronchi and the pulmonary area, thus assisting to distribute the circulation generally, and at the same time subduing the inflammation; while the introduction of oxygen will not only refresh and soothe the inflamed and congested parts, but will carry to all the tissues in the body the agent most required by these patients to stimulate nutrition, to restore appetite, and aid in the assimilation of food by the tissues.

Before consolidation can be detected a full-length ice bag may be wrapped in flannel and applied over the spinal vertebræ, from the fourth cervical to a line opposite the crests of the ilia, for thirty minutes morning and evening, and the results watched. Such an application will dilate the arteries throughout the body, thus equalizing the circulation; but it may not be successful, as it may dilate the arteries in the lungs more widely than they already are, and thus hasten a serious issue. The hot water bag is to be preferred.

Except in this stage the full-length ice bag should not be used at all in pulmonary tuberculosis, but a short bag six inches in length, used solely over the last two dorsal and the first three lumbar vertebræ, will be found to be soothing and very beneficial at any period, because it will dilate the arteries in the lower body and extremities, thus relieving the constant tendency to inflammation in the pleuræ, the lungs, and the bronchioles, and making a more active and efficient general circulation. It will also check and keep in control that exhausting diarrhea so frequent in phthisical subjects.

The Christy Saddle for 1898 is now being displayed by A. G. Spalding & Bros. and their agents throughout the country. If anything, it is an improvement on last years' saddle which was such a phenomenal success. The Christy Saddle has received the universal endorsement of the medical fraternity, and much of its success can be attributed to that endorsement. In fact, the sales of last year reached over 300,000. Mr. A. G. Spalding himself claims that the large sales were primarily due to the fact that the saddle received the endorsement of the medical profession. This year the advance orders for the saddle are far beyond the expectations of the makers, because the different high grade manufacturers are offering it now as a regular equipment, or as an option, on there wheels, without an additional charge. Close on to one hundred makers have signified their intention of so offering it, simply because it is a high grade equipment and one that has demonstrated its true worth. Doctors are interested in this saddle question and they should be owing to the fact that cycling has become so popular. Physicians should make themselves thoroughly conversant with anything that pertains to the bicycle, and if any doctor who reads this article will send to A. G. Spalding & Bros., New York, Chicago, or Philadelphia, for a Christy Saddle Bulletin, he will find in it some very interesting matter pertaining to the saddle question and the construction of the Christy Saddle.

Practical Evidence.

I used your sample of Resinol on myself for Pruritus Ani, which has been my curse for several years, defying all applications. The first application proved efficacious, and I am now using and prescribing Resinol for the above and several other itching troubles. In fact, I think it is the best remedy I have ever used for the diseases for which it is recommended.
H. B. LEIGHTON, M.D., Boston, Mass.

I have used your Resinol in Inflammatory Rheumatism with happy results. Hope others will try it. I know they will be pleased.
E. J. BURNSIDE, M. D., Phila., Pa.

It gives me pleasure to say that Resinol is the best application for local treatment of Eczema I have ever used. I can also bear testimony to its efficacy in Erysipelas, and its soothing and healing virtues in all inflamed surfaces.
A. S. FRENCH, M.D., Lawrence, Mass.

It is but just that I should attest my satisfaction with the use of Resinol. It is a marvel of efficacy in Pruritus Ani. In relief of soreness due to scalding from acute Nasal Coryza, it acts like a charm.
J. H. THOMPSON, M.D., Goshen, N.Y.

Resinol is by far the best application I have ever used in a practice of 48 years for the diseases recommended. A case of Eczema commencing on the scalp and extending over the entire face and which had been under the treatment of various physicians with no apparent benefit, was completely cured by it in less than two weeks.
J. J. WORTHY, M.D., Lavalle, Wis.

I am very much pleased with the effects resulting from the use of Ung't Resinol in cases of Itching Piles, Pruritus Ani, and Vulvae, Eczema, Erysipelas, &c. In fact it is the remedy "par excellence" in all cases where there is a Congested or Hyperæmic condition of the capillary Blood Vessels.
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I frequently prescribe Resinol, and am well pleased with its work. It has proved very useful in many forms of eruption of the skin, and especially so in Pruritus Vulvæ or Ani, and in Eczema of other parts of the body.
LUCY HALL BROWN, M.D., Brooklyn, N. Y.

I take pleasure in stating that I have found Unguentum Resinol almost a specific for Pruritus Ani, Itching Piles and Marginal Eczema.
HENRY HUG, M.D., Detroit, Mich.

Resinol is a harmless antiseptic and a true skin anæsthetic, absolutely non-irritant and non toxic (free from lead, mercury, or cocaine), can be applied to mucous, excoriated or denuded surfaces of any extent at any age without fear of untoward results, and is not contra-indicated by any internal medication that may be deemed advisable.

Resinol is put up in *one ounce* jars at 50 cts. each, and can be obtained at any drug store. **Sample** sent **free** on application, or **one** regular size jar for trial on receipt of 25 cents.

RESINOL CHEMICAL CO., Baltimore, Md.

A Terrible Scald.

It gives me pleasure to bear witness to the valuable qualities of your preparation, Unguentine, writes Dr J. E. G. Waddington of West Covington, Ky. The first case in which I used it was that of my wife who accidently overturned a kettle of hot water, severly scalding her foot, making an extremely painful injury. I used nothing but Unguentine, covering the same with cotton and a bandage. I never saw quicker or better results from the first application. The burning sensation was relieved almost immediately, and a complete cure was effected in a very short space of time without any scar whatever. I have frequently used it since and it has always given good satisfaction.

Chemical Food is a mixture of Phosphoric Acid and Phosphates. the value of which Physicians seem to have lost sight of to some extent, in the past few years. The Robinson Pettet Co., to whose advertisement (on page 140) we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

Christy Saddle Prize Competition.

Early in May, 1897, Messrs. A. G. Spalding & Brothers announced a competition, open to doctors only, for the best written advertisement setting forth the good points of the Christy Anatomical Saddle. Hundreds of advertisements, of which we give a few in this number of the Bulletin were received up to the closing day of the contest, April 15. A jury consisting of Mr. George B. Gallup, of the Metropolitan Magazine, New York; Mr. Joseph Wilberding, of the New York Times, and Mr. J. W. Curtiss, of A. G. Spalding & Bro's., decided, after careful consideration, to award the prizes as follows: First Prize, $50, won by W. H. Thompson, M. D., Winamac, Ind.; Second Prize, $25, won by F. A. Myrick, D. D. S., 100 Lexington Ave., New York; Third Prize, $10, won by E. R. Axtell, M. D., University of Denver, Col. To each doctor contributing an advertisement which was accepted, one Christy anatomical Saddle was sent free of charge. The advertisements received were varied indeed, and show conclusively that the doctors of the country were very much interested in the saddle question.

Treatment of Epilepsy by Hot Air Baths.

Recent experimental observations have proved that the fits in cases of idiopathic epilepsy are preceded and accompanied by greatly increased toxicity of the blood, urine, and gastric juice; and therapeutic measures, such as the free use of purgatives, diuretics, and intestinal antiseptics, washing out of the stomach. etc., have been advocated with a view to the prevention of the formation or accumulation of toxins in the body in such cases. Cabitto has recently made the further observation that the sweat of epileptics has a correspondingly increased toxicity about the time of the fits. He obtained the sweat for his experiments by placing the patients in a hot air bath, and the results he obtained suggested to him the use of this as a therapeutic agent in epilepsy, with a view to elimination of the toxins by way of the skin. He has given the treatment an extensive trial, and states that he is convinced that it is an excellent means of preventing and interrupting epileptic attacks. It should be employed whenever the prodromal symptoms manifest themselves. The beneficial effects were not merely transitory, and therefore he believes that the baths exert upon other organs in additon to the cutaneous glands an influence which causes them to eliminate the poison more rapidly. He recommends that the various other measures that have been found of service for the prevention of auto-intoxication should also be employed,

Old Ulcers.

That have baffled the skill of physicians for years, will heal rapidly and satisfactory by using applications of Sennine Powder. Sennine stimulates cellular activity and promotes granulations—has pronounced bactericidal power and desiccative action. Under the influence of this powder ulcers of all character readily cease sloughing and assume a healthy condition, secretions are diminished and healing facilitated. Common, health and unhealthy, indolent, irritable, sloughing, fungus, superficial and deep ulcers yield to this simple treatment when other procedures fail.

Sample and formula mailed on application. Dios Cemical Co., St. Louis.,

---

Dr. L. Lewis. Lewis Sanitorium, Auburn, N. Y.. reports: I had a Mrs. R. upon Hagee's Cordial, and she improved every day. Her weight when she began was 101 lbs., and is now 145 lbs., after eight months use of the Cordial. She had night sweats, hectic cough, diarrhœa, and all the regular symptoms which are connected with phthisis.

A Perfect Co-Adjuvant.

Physicians should not forget that no matter what their preference may be as to the form in which milk should be used for their patients and the babies under their care, whether it is modified, sterilized, pasteurized, peptonized, treated by some other method, or natural, they can always depend on the perfect co-adjuvancy of that unrivalled dietetic preparation, Imperial Granum. Many years of successful clinical experience having proved this combination of nutriments to be acceptable to the palate and also to the most delicate stomach at all periods of life, being in many cases retained and assimilated when everything else is rejected. though in very extreme cases the Imperial Granum is often prepared with pure water only.

Leinol.

This preparation is a combination of Ol Lini with Acid Hydrocyanic in the form of a perfect emulsion. To each fluid ounce is added four drops of Sulphate Codeine. It is the modified formula of Prof. Wm. H. Thomson of the University of New York, and is especially indicated in childhood and old age, and from the numerous letters that have been received by the Norwich Parmacal Co., who manufacture it, they are almost unanimous to the point that it is extremely pleasant to the taste, that it increases the appetite, and dispells night sweats, and in winter coughs, colds and bronchitis, its action is all that could be desired. And in nearly every case there has been a gain of weight and renewed energy following its use.

DECEMBER 29, 1897.

TO THE IMPERIAL GRANUM COMPANY,
New Haven, Conn.:

Dear Sirs:—I have raised my baby on Imperial Granum, and no healthier child can be found in the city. She is three years old, weighs thirty-six pounds, and still has two meals a days consisting almost wholly of Imperial Granum. Her last meal at night is Imperial Granum only. It is soothing, nourishing and satisfying, and gives *good sleep* and *no nightmare*, which children so frequently have from improper evening feeding! I always speak enthusiastically for the Imperial Granum, for I know of no food that is as good for babies and children. ———, M.D.

Literature and Samples for clinical test supplied only to Physicians and trained nurses. Sent free, charges prepaid, on request. Correspondence solicited.

ALWAYS THE SAME.

A STANDARD OF ANTISEPTIC WORTH.

LISTERINE.

LISTERINE is to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.

LISTERINE is of accurately determined and uniform antiseptic power and of positive originality.

LISTERINE is kept in stock by all worthy pharmacists everywhere

LISTERINE is taken as the standard of antiseptic preparations: The imitators all say, "It is something like Listerine."

:o:

LAMBERT'S

LITHIATED HYDRANGEA.

A valuable Renal Alterative and Anti-Lithic agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

DESCRIPTIVE LITERATUE UPON APPLICATION.

LAMBERT PHARMACAL CO., ST. LOUIS

Directions for Treatment with Aseptolin —Edson.

Aseptolin should be injected into the abdominal parietes or into the subcutaneous tissues of the back under and about the scapulæ. An antitoxin syringe, or a small aspirating syringe holding two drachms is well adapted for its use. Aseptolin being of about the same density as Majendie's solution of morphine, a small needle, such as is used for the latter solution, should be used. The antitoxin needle which accompanies the antitoxine syringe should not be used, as by reason of its large size it causes unnecessary suffering, and is liable to produce severe irritation.

The needle should be inserted well under the skin, the point being directed away from the median line. The point should not pierce the muscular tissue, nor even the fascia covering the muscle, lest the injection cause a noduler This nodule, beyond possibly being a tender spot, and annoying the patient, however, will gradually disappear and do no harm. It but rarely results from injection, carefully given, and is then due to abnormal irritability of the tissues.

The dosage in a case of phthisis should generally begin with from 50 to 70 m. daily in a single injection, and be increased 10 m. daily until 100 m. are given. This latter dose should be kept up daily, and it may be increased to 180, or even 200 m. a day. The treatment is continued until the patient recovers, or until some symptom appears which indicates to the attending physician the discontinuance of the Aseptolin. This would probably be the case if, for instance, albumen should appear in the urine, or if unusual nervous symptoms should appear, or if persistent nausea should be present, or if any symptom which was evidence of a personal idiosyncrasy against the remedy should show itself. With all but the last of these, a discontinuance of the Aseptolin for one, two or three days is usually sufficient. It can then be resumed.

With this treatment an inhalation should be administered, delivered through a globe inhaler or other suitable inhaler, consisting of 3% of pure phenol or glycerine 10%, water 87%.

This should be used at least once daily, preferably twice, for five minutes or so each time, the patient taking deep inhalations, forcibly expanding the lungs and drawing the medicated vapor deeply into them.

Once daily the respiratory tract should be sprayed with a solution of iodoform in ether. This solution should contain about 8 or 10% of iodoform, and should be made fresh at the time it is used. To make this solution, as much iodoform as can be held on a twenty-five cent. piece is taken out of the iodoform bottle by means of a spatula and added to about half an ounce of ether, in which it will dissolve.

The spray is best given under a pressure of about one atmosphere in a compressed air receiver. and delivered from a Sass spray tube, having a laryngeal tip (downward delivery).

The tube should be introduced well into the mouth and the spray delivered towards the opening into the larynx. Care should be taken not to deliver the spray too forcibly.

The patient should be directed to inhale and exhale deeply during the delivery of the spray, in order to get the iodoform into the affected lungs as deeply as possible. The ether will evaporate and leave the iodoform coating the air passages where it exerts a germicidal and healing effect. It is a synergist to phenol over its germicidal range, and consequently such of it as is absorbed by the system, and this is not inconsiderable, aids the phenol in destroying the cause of the disease.

It is impossible to fix anything like the exact period necessary to effect a cure in a case of phthisis. The remedy affords the best known means of treating the disease, but though it effects remarkable results, and cures a percentage of cases, *it is not a "sure cure."* The physician should thoroughly understand this, and the patient should be told that 30 successive days of treatment will be necessary to commence with. At the end of this period, if the patient has shown a marked improvement as evinced by a gain in weight, diminished cough and expectoration, lower temperature range, etc., the inhalation and spray should be continued daily for another month, but the injection may be given every other day; or if there is much soreness caused by the bulk of fluid injected, the remedy may be given by the rectum in doses of half an ounce to an ounce every other day, or, if the physician deems best, every day, until the improvement appears to have becomes permanent.

I take pleasure in offering my testimony to the great value of Cactina Pillets, in cases of weak and irregular action of the heart. I have used them for four years and have never been disappointed in them. They not only stimulate the heart, but improve that organ permanently. I find them very useful in all cases of typhoid fever and pneumonia. C. B. MATTHEWS, M. D.

Kent, Ind.

HYDROZONE

(30 volumes preserved aqueous solution of H_2O_2)

THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER.
HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

GLYCOZONE

(C. P. Clycerine combined with Ozone)

THE MOST POWERFUL HEALING AGENT KNOWN.

These remedies cure all diseases caused by Germs.
Successfully used in the treatment of diseases of the Genito-Urinary Organs (Acute or Chronic):

Whites, Leucorrhœa, Vaginitis, Metritis, Endometritis,. Ulceration of the Uterus, — Urethritis, Gonorhæa, — Cystitis, Ulcer of the Bladder, etc.

Injections of **Hydrozone** diluted with water, (according to the degree of sensitiveness of the patient) will cure the most obstinate cases.

Send for free 240-page book "Treatment of Diseases caused by Germs," containing reprints of 120 scientific articles by leading contributors to medical literature.

Physicians remitting 50 cents will receive one complimentary sample of each, "Hydrozone" and "Glycozone" by express, charges prepaid.

Hydrozone is put up only in extra small, small, medium, and large size bottles, bearing a red label, white letters, gold and blue border with my signature.

Glycozone is put up only in 4-oz., 8-oz. and 16-oz. bottles, bearing a yellow label, white and black letters, red and blue border with my signature.

Marchand's Eye Balsam cures all inflammatory and contagious diseases of the eyes.

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Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

Charles Marchand, 28 Prince St., New York.

Sold by leading Druggists. Avoid Imitations. ☞ Mention this Publication

Experience with Argonin in a Large Number of Cases.

By D. E. Blackman, M. D., Buffalo, N. Y.

In treating gonorrhœa during the past year, I have employed the new silver proteid, Argonin, in nearly every case. I always subject the secretion to a microscopical test, and only cases in which the gonococci are found in abundance have been treated with Argonin. I have not employed the drug in all cases in the same strength, for it can scarcely be expected that the concentration of value in the acute stage will give the same good results in the more chronic cases. If the discharge has existed but five or six days, I prescribe a 5 per cent. solution. If there is much irritation and pain on micturition I am always sure that this symptom will be completely relieved after the first two or three injections.

After the first application of the solution there may be an increase in the discharge, but after each subsequent injection the secretion is markedly lessened until in a few days nothing exists but a thin, serous discharge. This rapidly disappears. It is my custom to continue the Argonin for a few days after all discharge and irritation have ceased. If I find the urethra is not hyper sensitive, I have no hesitation in using 10 per cent. solutions.

The average duration of acute gonorrhœa under the Argonin treatment in my hands is from 3 to 7 days, the average of all my cases being 5 2-3 days.

A solution that may give one patient much comfort may cause considerable irritation in another. Therefore, care should be exercised, and the sensibility of the urethra tested.

I am always very careful to direct the patient how to use the syringe, for I have found that many failures result, not from inefficiency of the drug, but through ignorance of the patient on this point.

I find it advisable to direct the druggist to dispense the solution in dark bottles, as otherwise decomposition of the salt is likely to occur.

In gonorrhœa of the female I use the Argonin in stronger solutions. It is very soothing, and even in concentration does not stain the clothing of the patient.

I have closely studied the action of Argonin, and I am free to say that it has given me far more satisfactory results than any other treatment I have ever employed. It has proven so highly satisfactory in all of my cases (which have run up to several hundred) that I can cheerfully recommend it to others as a specific in almost every uncomplicated case.

When Is Abortion Necessary?

The following treatment of this topic by the editor of the London Lancet is remarkable and tells all that it is necessary to know concerning the situation:

The question as to what are the circumstances which justify the induction of abortion is one that often arises and can generally be answered without much difficulty if the fundamental principles that should guide us are borne in mind. We have reason to think, however, that at times, and perhaps not very rarely, practitioners who are fully alive to their responsibilities and really anxious to do their duty feel some doubt as to what is the proper course to pursue. Uncertainty of the kind referred to arises more especially, and indeed almost entirely, from the introduction of collateral issues into the main question. The wishes of the patient, or of her husband, or of her friends, for example, may be strongly in favor of the termination of the pregnancy, and it may need some firmness on the part of the medical man to disregard these wishes at the risk of giving offence and to form his opinion on the medical aspects of the case with due regard to the requirements of the law. Certain it is that medical men are frequently—none but medical men know how frequently—asked to terminate a pregnancy under circumstances in which compliance with the patient's request means the commission of a crime. There is apparently a good deal of ignorance on the part of some women about the right and wrong of the matter. Not very rarely a woman will say that when she and her husband married they agreed that there should be no family, that they formed plans of life which the presence of a family would seriously interfere with or sompletely alter, and she will, after the occurrence of two months amenorrhœa has suggested pregnancy, come to her medical man asking him, as she may euphemistically term it, to help her and impressing it upon him *more feminarum* that he really *must* help her. When it is more or less gently pointed out to her that she is asking him to do what would be professionally infamous and what is besides actually a crime in the eyes of the law it is very common for her to say that at the early period of pregnancy supposed there can be nothing wrong since the child has not yet come to life. This is, of course, a ridiculous fallacy, but one often tenaciously clung to by women in such cases as that supposed.

Arguments with patients of this type is generally futile. Another plausible argument not rarely urged by women is that they are poor and unable to provide properly for children if they should have them. Neither of the two points just mentioned need, however, give rise to the least hesitation on the part of the medical adviser as to what is the right course for him to adopt. Neither inconvenience as regards private plans for the future nor even the real hardship that is occasioned, more especially to the children, by the marriage and fertility of persons unable to support a family are considerations entitled to the slightest weight as the law stands, nor do we think they give rise to any difficulty.

This is very good advice as far as it goes, but it scarcely goes far enough, since there are instances where a medical man has been under the impression that his action in inducing abortion will he blameless so long as he can find another member of the profession to agree with him in considering interference justifiable in the particular case. It should be clearly understood that it is essentially a question of the rightness or otherwise of the operation in the case under consideration. If two men or any number of men agree to do what is wrong the action remains wrong notwithstanding the number of those concerned in it. Unless the grounds on which they decide to act are such as will satisfy the requirements of the law, the mere fact that two or more are concerned, instead of one, in doing what is done is of no importance. It is not the number of practitioners concerned, but the actual merits of the particular case that will render the course adopted legal or otherwise. The fact that a patient threatens to commit suicide unless her medical man terminates the pregnancy is no justification at all for him if he should comply with her wishes. That she threatens to do what is wrong in no respect improves his position if he consents to do what is wrong. If she is mentally in such a state as to be unaccountable for her actions that is a good reason for having such a patient carefully watched, or, if necessary, put under restraint. As a general rule, as is well known, patients who threaten to commit suicide in the circumstances in question do not do so.

It now costs $10 to spit in a street car or public building under government control in the District of Columbia. For the former offense a California millionaire was recently sentenced to twenty-four hours' imprisonment in the county jail at San Francisco, so it is stated.

Osler on Typhoid Fever.

In a paper published in the Philadelphia Medical Journal Dr. Osler gives utterance to new views on this disease and does not lose the opportunity to give a blow to all other methods than his own :

He defines typhoid fever to be a general infection with special localizations in the lymphatic tissues of the intestines, in the mesenteric glands, spleen, liver and bone-marrow. So far as we know the bacilli do not multiply and produce the poison in the intestine, but in certain tissues of its wall, and in the organs named. Within the past few years we have learned to recognize a typhoid fever without intestinal lesions. In the body of this paper he believes *the most important practical question of today relating to typhoid fever, is whether we shall treat it as an intestinal disease, or as a general infection.* He then says :

"At present a very large majority of the professsion, adopting the former view, use so-called antiseptics, with or without purgatives. Many years ago I abandoned the carbolic acid and iodine treatment—still a favorite, I see, in some quarters—and since then I have used no measures directed either to disinfection of the bowel or to the removal of supposed irritants, etc. Calomel, mercuric chlorid, Yeo's chlorin water, salol, creosote, guaiacol, beta-naphthol, benzonaphthol and the shot-gun compound of Dr. Woodbridge are now much in vogue, and this at least can be said—that they probably do no harm—though after reading Dr. McCormick's experience of nineteen instances of hemorrhage from the bowels in 100 cases of typhoid fever one has a little doubt. This, of course, may have been an accidental experience, though a treatment so active as to call for from four to eight passages in the twenty-four hours cannot escape the suspicion of having something to do with this extraordinary percentage, the highest I have been able to find in the literature. This is not the first time that the profession has had the purgative method of the treatment of typhoid fever urged upon it. Fifty years ago M. De Laroque 'gained a certain Parisian notoriety by treating typhoid fever with purgatives in the morning, purgatives at noon, purgatives in the evening, and purgatives in the morning again.' Bretonneau, too, one of the great students of typhoid fever, recommended saline laxatives. The Paris Journals of fifty years ago are full of discussions on this question. We have possibly been too fearful of the dangers of the use of purgatives in typhoid fever. The experience of a great many men who have adopted the eliminative method of Thistle, or who have used salines and calomel freely, shows that the mortality is not materially increased over that from the ordinary symptomatic plan. My contention, however, is that they are not indicated, as it is not likely that the typhoid bacilli multiply and develop their poison to any extent in the intestinal contents themselves. One cannot but be influenced, too, by personal experience, and our results on the non-interference plan have been (for a general hospital) very satisfactory.

Professor Schafer on Anæsthesia.

In a recent meeting of the Society of Anæsthetists, of England, Prof. Schafer contended that the respiratory, vaso-motor, and other centers in the medulla were probably affected by anæthetics almost simultaneously, although some were more susceptible than others. At a certain stage of the action of chloroform the blood pressure rapidly fell and this went on *pari passu* with paralysis of the respiratory centre, while the heart's action grew weak itself, probably in consequence of paralysis of the vaso-motor centre, the effect on the vaso-motor centre being the most fatal in cases of chloroform poisoning on account of the absence of efficient and ready means of counteracting it. Mere failure of respiration could easily be counteracted, as comparatively slight interchange of air was necessary provided the circulation was unaffected. Chloroform-laden blood probably injured the muscular tissue of the heart rather than interfered with its nervous mechanism. In performing artificial respiration he regarded the performance of expiration as most important. It had been shown that the diminution of the size of the pulmonary alveoli led to inspiration. He advocated the employment of atropine before the giving of chloroform as a means of preventing arterial dilatation, thus tending to counteract the dangerous fall of blood pressure. Two drugs which promoted the greatest contraction of arterioles and so would counteract the greatest danger of chloroform—the fall of blood pressure—were, according to his experience, nicotine and the extract of suprarenal capsule. His experience of atropine was by intravascular injection; he had no doubt that hypodermic or introserous injection would prove equally effectual. Extract of suprarenal capsule possessed an extraordinary effect on the heart, increasing its rate and the force of its beat. He thought these two substances would go a long way towards enabling patients to recover from vaso-motor and partial cardiac paralysis.

Quinine in Malarial Fever.

Dr. Row, of Madras, India, writing in the New York Medical Journal, says in regard to the administration of this drug:

The actual method employed by me in all cases of intermittent fevers is never to give quinine either before or during an attack. I always wait for the attack to subside before giving any medicine; and during the attack I allow the patient to have any hot drinks he may like, such as coffee, tea, or warm milk, or iced water or milk if preferred. I never give any antipyretics to bring down the fever, as I have always found that the reduction of fever by means of an antipyretic prevented somehow the full action of quinine, and recurrence of the attacks has been common only in such cases. But when the fever begins to subside in the usual course, and the patient begins to perspire freely and to feel free from headache and other uncomfortable symptoms, I give him from ten to fifteen grains of sulphate of quinine for the first dose and then give five grains every four, five, or six hours after that (in many cases not more than four times a day) for a week at least, after which time I continue quinine in two-grain doses with four or five minims of Fowler's solution (liquor arsenicalis, B. P.) twice a day, after meals, for a fortnight longer.

If quinine is administered in this way it is very rarely the next attack occurs. In my experience of many cases of malarial intermittent fevers of all types, I have not had more than five or six cases in which the attack recurred more than once, and those rapidly yielded to the quinine similarly administered again. Larger doses than fifteen grains, as advised by Dr. Ballagi and others, are perfectly unnecessary and are chiefly instrumental in producing many of the ill effects of quinine poisoning, so to speak. As a general rule I prescribe only ten grains of sulphate of quinine for an adult for the first dose and it is only in rare instances that I give fifteen grains, and I have had no occasion to use any larger dose than this, as by the use of this method the very next attack is invariably prevented.

The form in which I give quinine is that of soft gelatin capsules containing measured quantities, or that of freshly made pills with glyceride of tragacanth, or that of wafers. It is only rarely I order it as a mixture or solution, more especially in cases of children and others who cannot swallow a pill, however soft and small it may be. Though the solution of quinine does undoubtedly act much sooner and much more efficiently, it has two important drawbacks—viz.: its bitter taste and its producing vomiting oftener than the capsules, wafers, or pills (freshly prepared). Certainly, as Dr. Balagi says, compressed tablets and hard coated pills are to be condemned for I know of a case in which a brother practitioner here prescribed seven of these hard-coated pills of two grains each. and six of them were passen out in the patient's motions two days after, intact.

The County Society and the Health Board.

It is many years since a president of the Medical Society of the County of New York has appreciated his duty to the profession so fully as the present incumbent. Dr. Jacobus, in his inaugural address, called attention to many of the disabilities under which the profession is laboring, and suggested the proper remedies—namely, thorough investigation of alleged evils by competent committees, with instructions to devise and recommend suitable legislation. One of these committees was charged with an investigation of the relations of the health department to the profession and the public; and its report, adopted unanimously at the last meeting of the society, represents the careful work of men whose intelligence and constant devotion to the interests of the profession for over twenty-five years are known to all. The bill prepared by them, and which has been presented to the legislature with a promptness that other committees might emulate, now awaits the action of our lawgivers. We have examined its provisions with care, and find that, while it in nowise interferes with the present *personnel* of this department, it rescinds the antiquated provision that prevented a physician from being the presiding officer. It defines the duties of physicians in regard to the report of cases of contagious and infectious diseases, and specifically names the ones that shall be reported. It provides against further increase of hospitals to be controlled by the board, and absolutely repeals the obnoxious section which virtually made every physician employed in the department a spy on his fellow-practitioner. The present charter authorizes the department to manufacture an indefinite number of antitoxins. This power has been materially curtailed, and its authority to offer them for sale *in competition with private producers is absolutely repealed.* These are the principal changes, and we believe they reflect the sober and thinking sense of the profession. It is to be hoped that no obstructions will be thrown in the way of prompt and favorable action by the legislature. The presentation of this bill, however, does not terminate the work of the committee. which will be continued by Drs. Hadden, A. H. Smith, Piffard, and Satterthwaite.—[From the Medical Record, Jan. 15, 1898.]

Gonorrhœa a Constitutional Disease.

A paper upon the above subject was communicated to the French Urological Association by MM. Jullien and Sibut, of Paris. (La Médecine Moderne.)

The writers remarked that the general disorders which may complicate gonorrhœa are today well recognized. They contributed to the list two new cases. One patient was a young girl of 17. admitted to Saint Lazarus on account of vaginal gonorrhœa, in whom the discharge was complicated by articular synovitis, tendino-synovitis, hygroma, myositis, nephritis, and suddenly the temperature rose to 40 degrees C. (104 degrees F.) and meningitis, with delirium developed. Cold baths were beneficial, and the patient recovered. An eruption of rose-colored spots had preceded the evolution of the complications. Examination of the blood did not reveal the presence of gonococci, which had previously been found in the urethra.

In the second case gonorrhœa co-existed with syphilis, which it seemed to dominate. Gonococci were recognized in the vaginal pus. Articular troubles showed themselves in various situations, but soon gave place to a cardiac affection which soon ended in destruction of the mitral valve. Emboli were produced, the cardiac cachexia increased, the patient lost flesh, and remained infirm, short of breath and incapable of any work. Gonococci were present in the blood.

These cases again demonstrate infection of the blood in certain cases of gonorrhœa. The writers also cited the investigations of Ahman who, in a similar case, obtained pure cultures of the gonococci and, with the fifth generation, inoculated a young man who offered himself for experiment. A violent gonorrhœa resulted and, notwithstanding the promptest attention, was complicated with epididymitis, cystitis, synovitis, and, finally, pleurisy.

A New Industry.

A woman and her three daughters were recently indicted in Odessa, charged in the Russian vernacular with the crime of "angel making," or as we should say, *infanticide.* It was proven on the trial that the charge for putting an infant out of the world was five shillings. The means were simple—neglect and starvation. "Angel making" was claimed to be the redeeming feature of the whole business.

Euphthalmin: A New Mydriatic.

By Dr. B. Treutler.

The author has investigated the action of Euphthalmin, the new mydiatic, in the Marburg University Eye Clinic, under the direction of Professor C. Hess. The new preparation is the hydrochloric acid salt of a mandelic derivative of n-methyl-vinyl-diaceton,alkamine. It is closely related to the new anæsthetic eucaine, bearing the same relation to it chemically as does homatropine to tropa-cocaine.

Careful comparative experiments with the new mydriatic have enabled Dr. Treutler to publish the following conclusions:

1. The instillation of Euphthalmin solutions into the eye causes only very slight and temporary inconvenience.

2. Euphthalmin is a powerful mydriatic. A 5 to 10 per cent. solution produces the maximum extension of the pupil in about the same time as 1 per cent. homatropine solution.

3. The mydiatic action is less intensive and prompt with adults than with young people.

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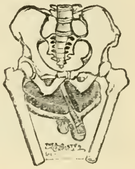

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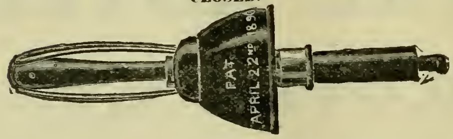

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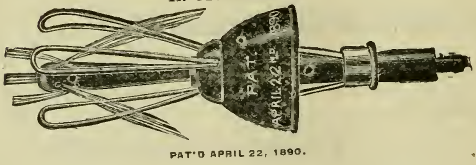

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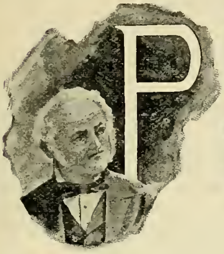

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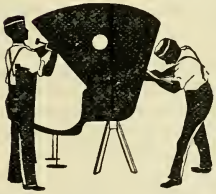

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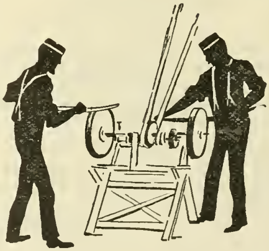

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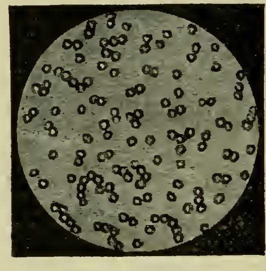

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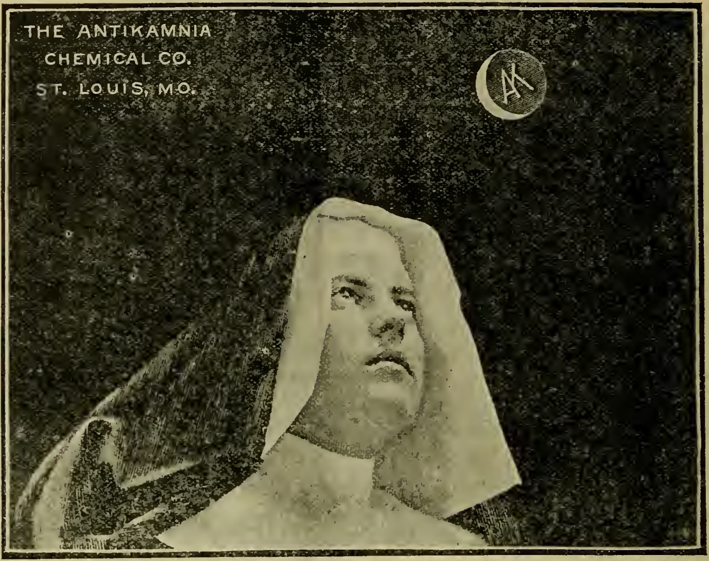
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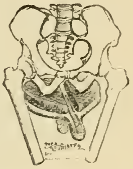

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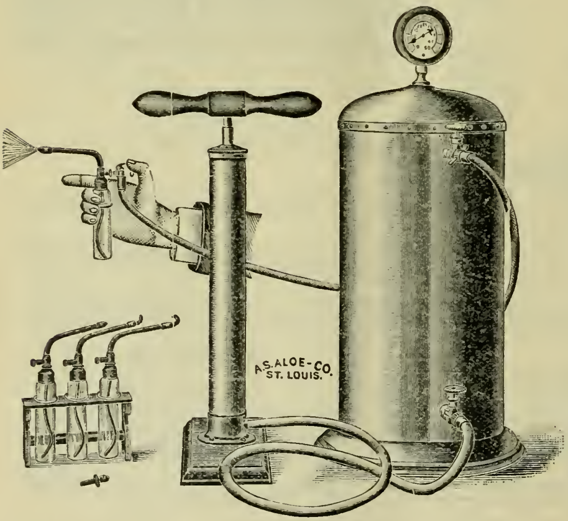
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The Charlotte Medical Journal.

Vol. XII. CHARLOTTE, N. C., MARCH, 1898. No. 3.

Conjunctivitis.*

By W. H. Wakefield, M. D., Charlotte, N. C.

According to Chon's tables 30 per cent. of the diseases of the eye are furnished by the conjunctiva, and of these almost all are inflammation. The mucous membrane of the eye being constantly exposed to external influences during waking hours, receives injuries without number, hence attacks of conjunctival inflammation occur to all persons. The causes of conjunctivitis, however, are not all extra ocular. Uncorrected refractive errors, lack of muscular balance, beginning presbyopia and incipient cataract are not infrequently accompanied by conjunctivitis. This affection displays many diverse types, from a simple hyperæmia, which generally disappears in a few days leaving no trace behind, to acute purulent ophthalmia and granular lids.

Simple or mild conjunctivitis may be caused by irritating gases, such as smoke, by the presence of a foreign body under the lids, by obstruction of the lachrymal passage; by nasal catarrh; by eye strain, either from uncorrected refraction errors, or lack of muscular balance, or by a "rundown" condition of health. The causes, in any particular case, continuing to operate, the disease may become chronic, and occasionally is very difficult to dislodge.

Complaint is made of dryness, of smarting, pricking or gritty sensation, perhaps the lids cannot be kept fully open owing to slight photophobia. The symptoms are more marked in the early morning and at night, and are aggravated by the use of the eyes. The most annoying cases of this class are those which are caused by the various forms of eye strain; whatever makes vision difficult excites hyperæmia. We see it in those who use their eyes to excess late at night; in those who have errors of refraction and incipient cataract. It is often coincident with chronic nasal catarrh, and if this develops at times into acute activity as in "hay fever" or "rosecold," the conjunctival hyperæmia correspondingly increases, and may grow into active conjunctivitis. There is a chronic type of the disease, found chiefly in old persons whose eyelids are baggy and who may have ectropium. Among all these subjects those who complain most will be the asthenopic persons, and the more excitable they are, the more will they emphasize their trouble.

TREATMENT.

The important point is to ascertain and remove the cause. If lachrymal obstruction be present, it were a pious hope rather than a reasonable expectation to anticipate the cure of the conjunctivitis without first putting the lachrymal canal in a healthy condition.

Symptoms indicating the presence of nasal catarrh should not be overlooked, as experience is not wanting to show that many cases of mild conjunctivitis owe their origin to a diseased condition of the nasal passages, In prescribing for the relief of mild conjunctivitis, it is the part of wisdom to avoid active, irritating agents. Energetic treatment by means of nitrate of silver or sulphate of zinc solutions or yellow oxide of mercury ointment, is in my opinion, positively contraindicated. In these mild cases we should not let our zeal to cure our patient right away get the better of our judgment. On one occasion I was consulted by a physician, a man who stands high in the estimation of the profession, and deservedly too. His eyes had been sore for about a week, and according to his statement were growing worse. I found the conjunctiva of the lids very red and angry looking, and that of the eye balls less so. From the history of the case and the appearance of the eyes I made a diagnosis of simple conjunctivitis, and I was at a loss to account for the failure of the disease to disappear under treatment. On my asking, "doctor, what have you done for your eyes?" he replied, "I am very busy, and as I wanted my eyes to get well quick, I used a 10 gr. sol. of zinc every two to three hours." I ventured the remark, "that was heroic treatment," and suggested that he use zinc not stronger than one-fourth grain to the ounce. He took my advice, and in 24 hours improvement set in. In this case the remedy had aggravated the condition of the eyes and caused considerable increase of the inflammation.

One remedy that is in general use among ophthalmic surgeons is boric acid. As with almost every drug known to our science, boric acid has its advocates and also those who decry it. Some speak of it only to say it is useless, but the consensus of opinion of those who have had ample opportunity for testing its usefulness is highly in its favor, It can bo used in the strength of a saturated solution, 16 grs. to the oz. of water, but owing to its precipitation from a solution of this strength when the temperature falls below 60 degrees F., I prefer to use a 12 gr. solution. In this strength it is slightly antiseptic, astringent and detergent. The cleansing qualities of the lotion are enhanced and its application rendered more soothing by the addition of sodium chlorid, 4 grs. to the oz. Camphor is an agent I have found useful. Its antiseptic and astringent properties are well known. A favorite formular of mine, varied to suit individual causes, is :

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*Read before the Charlotte Medical Society, March, 1898.

Acid Boric........c. p.	grs. 12
Sodi Chloridi........	grs. 4
Aqua Camph........	ʒ 1 to 2
Aqua Rosæ......ad. qs.......	℥ 1 M

I instruct the patient to instill into the eyes two to three drops every half hour to six hours, according to the amount of discharge and congestion of the conjunctiva. Bathing the eyes in water at a temperature of from 40 degress to 60 degrees has a decided antiphlogistic effect; to this water may be added a little common salt, or as the fashion now is, of Pond's Extract—in quantity varying from a teaspoonful to a tumbler of water. Hot water (not warm, but hot water) may be substituted for the cold, if the latter be unpleasant, or for any reason it is advisable not to apply cold to the patient. If the lids glue together in the morning, the removal of the crusts will be facilitated and the patient's distress lessened by anointing the lashes and lid-margins, at bedtime, with a salve made by thoroughly incorporating 5 grs. of calomel with one drachm of vaselene. In not a few instances the salve has seemed to exercise a decidedly beneficial effect when a small quantity was placed between the lids once daily. However, we should not pin our faith to one or two remedies to the exclusion of others, but be ever on the alert to give our patient the "benefit of a change," if we find a favorable termination delayed. Of course, if refractive errors and asthenopia be present, suitable glasses should be provided, and it goes without saying, the general health of the patient should have careful attention. The point I wish to emphasize is simply this, do not aggravate the case and prolong the period of suffering by using remedial agents that are too energetic and irritating, as such treatment, in the majority of these mild cases, is worse than no treatment. If the case does not yield to these mild measures, I use a combination of agents like the following :

℞. Zinc. Sulph........	gr. ¼ to ½.
Ammoni. Mur........	gr. ¼ to ½.
Aq. Menth. Pip........	ʒ 1 to 2.
Aq. Rosa. ad. qs........	℥ 1 M

Put two or three drops in eyes two or three times daily. Should this not prove effective I evert the lids and brush the whole conjunctival sack about twice or thrice weekly with a solution of Silver Nitrate ½ gr. to the oz. of distilled water.

We meet with conjunctival inflammations that are too active to be called "mild," hence, are classed as acute conjunctivitis. All the symptoms already enumerated are present in an increased degree and there will be observed more or less effusion in and beneath the conjunctiva. There will be swelling of the lids and inability to fully open them. But the striking symptom is the abnomal secretion that glues the lashes into bundles and the edges of the lid together during sleep; this secretion is flocculent and turbid, a mixture of serum, tears, mucous epithelium and a few pus-cells. It collects in flakes and spreads in a thin layer over the membrane. At the corneal margin there are often minute erosions and a narrow fringe of vessles may reach over into the transparent cornea. The flow of scalding tears and the persistent collection of the secretion provokes constant use of the handkerchief and there is often marked photophobia. In this disease there is a notable tendency to spontaneous recovery, and its duration is usually from one to four weeks. If, however, the person be cachectic or of bad habits and treatment neglected it may become a chronic malady. This is apt to be the case among the poor who pay but little attention to such matters unless the pain is severe. Frequently a seemingly mild attack refuses to get well and passes over into a state of thickening and infiltration of conjunctiva with hypertrophy of papillæ and of the epithelium, a condition convemently called granular conjunctivitis and it is extremely obstinate although it may not seem to be severe.

TREATMENT.

The first and chief consideration is scrupulous cleanliness. Simple cleansing of the eyes from all secretion is often all that is required. The temperature of the fluid can be left to the sensations of the patient, but as to the mode of application instruction must be given that the secretion must be removed and not retained within the lids; hence, poultices, bandages, raw oysters, rotten apples and the like must be prohibited. A simple compress wetted in the fluid and gently laid on the eye for fifteen or twenty minutes every hour or two is of benefit. It should be wetted afresh every two or three minutes and the secretion wiped from the edges of the lids. The purpose is to keep the eye clean, to remove and antagonize septic elements and to exert by the lotion a moderate control over the inflammatory action. For mild cases a cool lotion and for the severe cases a cold lotion will be usually chosen, but some patients obtain more relief from very hot applications. An excellent lotion is made by putting one teaspoon of boric acid and one-half teaspoon of salt in one-half pint of water. The patient is instructed to prepare it himself and use it copiously squirting some between the lids by means of a medicine dropper. It must not be forgotten that the majority of these cases amid healthy surroundings promptly get well and we should avoid unnecessary treatment, especially any harsh measures, which while they exhibit zeal, are in reality evidences of indiscretion. The treatment should be aimed at the uncomfortable symptoms, and having this in view push the simple means already mentioned and at bedtime smear simple cerate or vaselene or calomel and vaselene on the lids and among the lashes to prevent the formation of crusts during the night.

For cases of more severity or those that do not yield to the treatment mentioned, it may be needful to apply in addition astringent solutions. A very useful remedy is the zinc and ammonia mixture already mentioned which should be used two or three times daily. When the secretion is profuse or the redness intense nitrate of silver is the most satisfactory agent. The books tell us to use from two to five grains to the oz. but in such cases as have fallen under my observation I found one grain solution to be sufficiently strong. When the lids can be everted I prefer to apply by means of a brush having first thoroughly cleansed the membrane. One may resort to sols. of the bichloride from 5000 to 10000 as was formerly done, and this would be suited to mild epidemic cases and to tenement house outbreaks. It is irritating to most cases, but it is effective. As the acute attact subsides, if there be left a state of chronic hyperæmia one may touch the everted lids every other day with a sol. of silver nitrate ½ to 1 grain to the oz. or with a smooth crystal of alum and the zinc solution should be used three times daily.

It need hardly be said that during an acute attact the patient must not read or write or smoke and the eyes should be protected from the light. In most cases it is wise to use a 4 gr. sol. of atropia. Two drops three times daily will be sufficient. In healthy persons with favorable surroundings and with proper care, the outcome of acute conjunctivitis is perfect recovery within periods varying from five days to three or four weeks.

On the other hand there may be ulceration of the cornea with its various possibilities, iritis may set up, or there may be chronic thickening of the conjunctiva of the lids. Not a few cases of so-called granular lids have originated in acute conjunctivitis. In some cases we find succeeding acute conjunctivitis a mild chronic inflammation that is extremely tedious. The agents that in my hands, have seemed to produce the best result are nitrate of silver in solution varying from ½ gr. to 1 gr. to the oz. applied to the entire conjunctival sack by means of a small pledget of cotton on a delicate steel cotton carrier. This is done two or three times weekly and boric acid or zinc solution used three times daily. A solution of tannin in glycerin 10 grs. to the oz. applied once daily is of great value in the chronic stage, also a salve made by thoroughly rubbing ¼ to 1 gr. yellow oxide of mercury with 1 dram of vaselene.

Several forms of conjunctivitis remain yet to be discussed but they must be reserved for a future occasion.

Disturbing Factors in Abdominal Surgery.

By N. W. Webber, M. D., Prof. Gynæcology, Detroit College of Medicine. Gynæcolygist St. Mary's Hospital, etc., etc.

The responsibilities devolving upon the general practitioners of to-day is much greater than when we gray heads began our professional life. Asepsis in surgery has rendered possible investigations upon the living subject that a short time ago were relegated to the dissecting room or post-mortem table, and simplified operations that were only performed upon inferior animals, by those who had faith in the future, and that were "looking through a glass darkly." To-day colic means more than an old-fashioned "belly ache," or possibly inflammation of the bowels and the collapse that follows intense pain, coming on suddenly in a healthy woman has more significance than a hæmatocele, that satisfied us in our earlier years. The dispensations of Providence that transferred them to the silent tomb would be questioned under the light of modern knowledge. and "sacrificed by ignorance" might often be engraved on the head stone, to rhyme in any way they would with words of tribute to the deceased.

The same make of men and women existed a quarter of a century ago as now, yet appendicitis, ectopic gestation, impacted gall stones, obstructing exudates and other life destroying abdominal complications were not as well understood. The furor for operations is not a "fad," but a scientific evolution, the result of modern research.

Unfortunately it is not always the specialist who sees these cases in their incipiancy, in fact he rarely sees them until they are *in extremes*, and the diagnosis and the operation are often made in the same hour. Appendicitis is so common that it is discussed in ladies guilds, and gentlemens clubs, and victims who have lost the *bete noir* are numbered by the score in every well regulated community. They all think they know it, but the fact is patent that score of lives are lost simply because symptoms were not sufficiently marked or because what were marked were not appreciated, or because they expected relief on the conservative plan, or because they were afraid to acknowledge their mistakes, or because *ad nauseam.* The general practitioner who expects to find pain in the abdomen, tympanitis or muscular rigidity, a well defined lump in the right iliac region, or a point of tenderness over the McBurney point, with more or less constitutional disturbance, will find some case slip through his hands, with pus diffused through the abdominal cavity, and opportunity lost for help. Often the alert practitioner is handi-capped by obstinate patients, or by those who call him too late for any good. A short time ago I was called by Dr. Repp of this city, to operate upon a boy of four years for obstruction of the bowels. The father had gone to his office the second night before for a dose of physic, remarking that his boy had not been to stool for two days. A proper physic was prescribed. The next forenoon the father returned and asked for a stronger dose as the one already taken had done no good. The doctor suggested that he go himself and if best administer an enema. On arriving at the house he found the boy playing with his blocks, yet not with his usual vivacity. An enema brought away some sybala and nothing more. A temperature of 99 deg. was found but with no tenderness of abdomen at any point. That night he vomited some, yet retained a small glass of milk and lime water. Except for the slight temperature. nausea. and obstinate constipation the boy was farely well. No abdominal symptoms apparent; Walls' concave, with no tenderness or tumefaction. During the night, the second following the first dose of physic, he was restless, yet not enough to excite the parent's apprehensions and he retained milk and water, given at different intervals. In the morning he began to vomit freely, the doctor was sent for and on examining the excreta he detected a fecal odor. At this time his temperature was sub-normal and his appearance was so bad that his parents recognized the necessity of prompt operative procedure. On my arrival at the house I found the boy nearly moribund. He lay in a stupor, eyes turned up, countenance cyanosed, pulse scarcely perceptible, extremities cold. At first I refused to operate, as I considered the boy practically dead. At this time his abdomen was concave and no tumefaction could be felt. A hypo of nitro glycerine and strychnia aroused the little fellow so that he began to call for his mother and on the prayerful solicitation of the parents to operate I did so. I considered it a case of intestinal obstruction and opened up the abdomen in the median line. A gush of stinking pus was the first discovery after pushing the intestines to one side. Flakes of lymph firm enough to be pulled off in strips had bound two well defined kinks of the small intestines together, offering an obstruction in either one sufficient to account for the feculant vomiting. On further search for the cause of the inflammatory exudates and pus the appendix was pulled into view and at its very base an opening was found through which pus and fecal matter could be pressed. This was tied off, the intestines freed from obstructive lymph, the abdomen thoroughly flushed with a hot saline solution and closed up. The boy lived four hours after the completion of the operation. This boy was apparently well up to within thirty-six hours of his operation. The symptoms of developing appendicitis were so slight that I doubt if the most acute diagnostitian could have pronounced it appendicitis twenty-four hours before he died. His attending physician was a bright, alert, intelligent man and his diagnosis of intestinal obstruction was correct and the fulminating appendicitis preceding it was a surprise, that none could have foreseen. Another case in which the symptoms were decidedly equivocal. with the exception of recuring pain, warns one that painstaking care is necessary in making our diagnosis. In a casual conversation at a summer resort with a young man I was informed that he had at intervals of three to eighteen months acute attacks of colic which were relieved by enemas or a dose of physic. The last attack was over a year previous. Not caring to talk shop on a vacation I turned the conversation on to black bass as more appropriate to the time and place. Late in the season I was sent for at one of our hotels where I found this young man suffering from one of his attacks of colic and all the symptoms pointed to this trouble pure and simple. No tumefaction. No special point of tenderness, some distention of bowels by gas, but no temperature nor acceleration of pulse. By rectum I detected a faint suspicion of induration in the right iliac region and at once advised an operation. A physician was sent on from New York and a local surgeon of well known ability met me in council and the expectant treatment by both was recommended. Having great faith in Dr. Ferguson, of Chicago, he went to that city as soon as able and had his appendix removed at once. Some five ulcerated spots were found in this body when opened up, some of which would have soon opened into the peritoneal cavity and possibly have caused death. As it was he made a good recovery. Some two years ago I operated upon a case of ectopic gestation where rupture of the tube had occurred about five months previous. The symptoms at that time were pronounced and distinctive of this trouble. Sharp excruciating pain in abdomen followed by syncope and collapse. From this under appropriate stimulation, rest in bed &c., she recovered to a fair condition of health, yet with a gradual increasing tumefaction with more or less pain upon the right side. Extra uterine pregnancy between the folds of the broad ligament was diagnosed and an operation was successfully performed. Up to within four weeks ago she enjoyed robust health. At that time while engaged in work, that required her to stoop over and reach under some benches to reach some heavy object that required a severe strain for its removal she felt a sharp pain in the right side. This was followed by tympanitis and obstinate constipation and in forty-eight hours by fecal vomiting. She was removed to a hospital and operated upon and the intestines were found obstructed by two recent bands of lymph and the next day she died. I was informed by a physician present that remnants of the old exudate were present and from them the strain of her work set up the confligration that destroyed her life. From this case we learn that time, long and protracted, with rest, is an important factor in our prognosis of pelvic inflammations with exudates, of any kind.

I have had several cases in which temperature and pulse gave no indication of grave disturbance, and in some death resulted from too long waiting.

Recurring pains of an acute character in the abdomen, where, by exclusion, we are sure, the stomach, gall bladder, ureters or Fallopain tubes are not involved, justifies a strong suspicion, amounting to almost certainty of appendicitis, with a recommendation of an exploratory operation at least, and if any of the above possible complications exist a slight modification of the operation may result in their relief. If the exploration gives negative results, or reveals incurable disease no harm has been done, and an unsatisfactory diagnosis has been cleared up. When the conservative surgeon tells me that he has cured a case of appendicitis, or aborted a case of tubal pregnancy, by other means than the knife, I tell him that the undertaker will have him on the hip some day, and one death by mistake is worse than a dozen safe operations, though some of them may have been unnecessary.

535 Woodward Ave.

Suggestion and Suggestive Therapeutics.*

By L. B. McBrayer, M. D., Ashville, N. C.

Synonyms: — Hypnotism, Psychology, Mesmerism, etc.

t think my subject opportune, following the week's engagement of the Lees at the opera house, but it is too wide and too deep to be comprehended in one short essay, but I hope to say enough to at least interest every member of the society. Suggestion, as a therapeutic agent is going to force itself on the medical profession, and we had as well accept it and use it. Electricity was once used only by the charlatan and quack, but now it it is taught in all our medical colleges and is a part of the ordeal that confronts the young doctor as he sits before that august tribunal, the State Board of Medical Examiners. So I predict it will be ere long with suggestive therapeutics. It might be interesting to notice for a moment the different theories of the modus operandi of suggestion. Hudson Tuttle's theory is that there is a psychic ether, related to thought as the luminiferous ether is to light. Hippocrates says: It hath often appeared that while I have been soothing my patient that there were a strange property in my hands to pull or draw away from the affected parts, aches and divers impurities by laying my hands upon the place and by by extending my fingers toward it. It is thus known to certain of the learned that health may be impressed in the sick by certain movements and by contact, just as certain diseases may be communicated one to another.

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* Read before the Buncombe County Medical Society at its stated meeting Feb. 7, 1898.

Of Æsculapius it is said that he was able to allay pain by breathing on the inflamed parts or by stroking with his hands, and could throw some into long and restoring sleep. He could also control the frantic and hysterical by his manipulations. He himself went into a trance or dream during which he gave counsel to the sick.

Mesmer was the first to bring the subject to the attention of the world, writing a book on the subject about 1766. and was ridiculed by as intelligent a class of men as the medical profession and the thinking men of the world at large, and in 1815 was driven into exile and died. He first believed that the influence was electrical and later believed it to be animal magnetism. This magnetism he held to be a fluid which pervades the universe and enables one man, charged with the fluid to exert a powerful influence over others. But we believe with Liebault, Bernheim, and others, that suggestion is the key to the riddle. We might say with Von Helmont, the Finnish philosopher of 250 years ago, magnetism (we say suggestion) is active everywhere, and has nothing new but the name; it is a paradox only to those who ridicule everything.

It will be necessary, in order for us to thoroughly understand the laws which govern suggestion, for us to examine the mind. or minds of a human being. We use the plural because we believe with Hudson that every human being is in possession of a dual mind, and we will differentiate by calling one the *objective*, and the other the *subjeciive* mind. The objective mind takes cognizance of the objective world. Its media of observation are the five physical senses. It is the outgrowth of man's physical necessities. Its highest function is that of reasoning. The subjective mind takes cognizance of its environment by means independent of the physical senses as well as by them. It perceives by intuition. It is the seat of the emotions and the storehouse of memory. It performs its highest functions when the objective senses are in abeyance. In a word it is that intelligence which manifests itself in a subject in the hypnotic state. The objective man, or man in his normal condition is not controllable against reason, positive knowledge or the evidence of his senses, by the suggestions of another. The subjective mind or man in the hypnotic state is unqualifiedly and constantly amenable to the power of suggestion. The subjective mind accepts without hesitation or doubt every statement that is made to it no matter how absurd or ludicrous.

The two minds being posssessed of independent forms and functious, it follows as a necessary corollary that the subjective mind is as amenable to the control of its own objective mind as to the objective minds of others. This we call auto-suggestion. For example, it is well known that a person cannot be hypnotized against his will. By your objective mind you can suggest to your subjective mind that you must awake at a certain hour in the morning and you will almost invariably awake at the hour suggested. I have verified this many times, even before I knew anything of the laws of suggestion. Thii leads me to say that the subjective mind is an accurate computator of time. For example, I can tell a subject that he will present himself here at our next meeting two weeks from tonight. at 7 : 30 o'clock, and he will be here promptly. Or I suggest to a subject thet he will go to sleep and awake at the end of six hours, and he will not miss the hour ten minutes, so with auto-suggestion.

The objective mind *per se*, cannot measure the lapse of time. The only means by which the objective mind can measure time is by the exercise of the physical senses, either in the observation of the motions of the heavenly bodies or of some other physical object, which objective experience has proved to be a safe criterion upon which to base an experience. For example, in driving a familiar road I can usually guess in in from one to five minutes of the time, by taking cognizance of the distance I have traveled and the pace I had been going. I said a moment ago that the subjective mind was the storehouse of memory. Some believe that the momory of the subjective mind is perfect, that the minutest details of acquired knowledge are here recorded, and can under proper ciscumstances be called up. It is this mind in the face of apparent imminent death, as in drowning, that causes the thoughts and acts of a lifetime to pass before one in a minute, in one grand panoramic review.

True genius is undoubtedly the result of the synchronous action of these two minds, neither unduly dominating or usurping the powers and functions of the other. When the subjective mind is allowed to slightly dominate, the resultant acts of the individual are termed the "eccentricities of genius" or it may be said that the man has a hobby, or that he is a crank; when the subjective mind takes complete control the man is insane. We might go on with this discussion for hours but this will suffice for our present purpose.

A perfect passivity of the objective mind is the condition most favorable to hypnosis. In fact a man is in the hypnotic state when his objective mind is in abeyance. Hence in hypnotizing a subject we have them count their pulse, or gaze at some bright object for a time, as our teacher has said, to concentrate their minds, but a better expression is, to get their mind free from thought, or their objective mind in abeyance Then any suggestion given will be received as true, and you have your subject completely under your control. According to Bernheim about 19 per cent. of all people can be hypnotized—males and females about equal—a little larger per cent. of children than adults. According to C. O. Cory Indians and negroes are not good subjects and he has never found a chinaman who could be hypnotized.

In the hypnotic state, with a suggestion that the subject will feel no pain, grave surgical operations can be performed, and the patient watch the operation if you like, and yet feel no pain. Such operations as amputation of the breast have been done as above stated. However, suggestion, as you all know, proves more or less efficient in the waking state. Diseases which can be best treated by suggestion are those which there are no serious organic lesions, but the use of suggestion is not confined to these troubles alone because pain can be relieved, no matter what the cause. You will many of you remember how Sheriff John A. Brookshire was relieved of the pains in his knee joints from rheumatism by Dr. Henry, who was here several years ago. I once hypnotized a subject who had taken a severe cold and had coughed all of one night, insomuch that she was unable to sleep. On the second night I gave her the suggestion that she would not cough after she laid down and would stay well. She never coughed after that time.

The morphine, whiskey and tobacco habits can be relieved by suggestion, and no doubt it plays an important *role* in the treatment of these troubles. I once hypnotized a young man who was an inveterate cigarette smoker. I suggested to him that he could not smoke a cigarette for a week, that should he attempt it, he would become deathly sick. Soon after he left the room he essayed to try it being a little incredulous, but true to my suggestion he retched and vomited and it seemed he could never stop. Some of his friends brought him back to me and I stopped his nausea by a single suggestion to him in the waking state. Three or four days later he tried another cigarette with the same result. It is a rule that the stronger suggestion will always control the subject. And so in these cases, by repeated auto-suggestion the subject will in time overcome your suggestion, unless you repeat it at intervals. It is useless for me to elaborate further on the therapeutic uses of suggestion, as they will readily occur to the thinking mind of a physician.

One more thing and I am done. I believe it is claimed by all authors that there is nothing whatever to differentiate hypnotic from natural sleep. That suggestions given during natural sleep will be received and carried out just the same as in hypnotic sleep. This I have been unable to verify. Certain it is in my experience that *oral* suggestions will not be received by a subject in natural sleep. Probably because we are not *en rapport* with our subject. That it is possible for the subjective mind of one individual to communicate impressions to the subjective mind of another, both subjects being in natural sleep, even if many miles apart, seems to be proven beyond a doubt. This is called telepathy, but we haven't the time to discuss it here.

But when we discover a means by which we can get in communication or *en rapport* with a subject during natural sleep, so that they will receive oral suggestions, then it is that the 19 per cent. who can be hypnotized will rise to 100 per cent. and suggestion will become one of the greatest boons ever discovered for the benefit of mankind.

The science of hypnotism is in its infancy. We only know enough now to stimulate investigation, so it may not be many years until the trouble I speak of will be overcome, and the science of hypnotism be perfected as only scientific investigation can perfect it. I am indebted to Hudsou's work on "The Law of Psychic Phenomena," and to Bernheim on "Suggestive Therapeutics", and if any one cares to investigate the subject further I would recommend these works as thoroughly comprehensive and up to date.

How shall we Cure all Cases of Typhoid Fever?

By DR. W. O. HUSTON, Bellaire, Ohio.

In the December number of THE CHARLOTTE MEDICAL JOURNAL, Dr. T. Chalmers Peebles gives a history of ten fatal cases of typhoid fever. I looked to see in what year these cases occurred, but he gives no dates. Not wishing to criticise the doctor's treatment, I would suggest to him that he can cure all his cases in the future if he will employ Brandt's baths, *early, faithfully and with judgment.*

The doctor says Brandt's treatment was attempted in one case, but the shock was so great the friends kicked. I never begin treating a case with a full Brandt's bath, i. e., 15 minutes in water at 65 degrees F., but make the water 85 degrees F. for the first bath, and lower the temperature of each succeeding bath 5 degrees F. until 70 degrees or 65 degrees F. are reached. To lessen shock I administer 1 oz. of whiskey to patient before the bath. The patient must be well rubbed by three attendants all the time he is in the bath. By these means we avoid shocking the patient and his friends. After the first two or three are given the friends see the benefits of the baths and are converted in their favor. With their assistance any objections on the part of the patient are overcome.

Baths should be begun early, *if possible* before the fifth day of the disease. I rarely need to give more than four baths in twenty-four hours. When the patient is a child or is feebie, or when bathing has been neglected until the third week of the disease, and the patient's vitality is much reduced, it is better not to use the baths too cold, say 80 deg. to 85 deg. F. Much judgment must be exercised as to duration and temperature of baths, adapting them to patient's ability to react. On the other hand they must be cold enough to reduce the temperature. The man who bathes by routine will fail in many cases. A little "*tact*" at the start will almost always secure the patient's and his friends' consent to the baths if the physician states the case strongly to them. Where there is a *will* there will usually be a *way.*

The doctor says "some cases seem to carry the stamp of doom from the very onset of the disease, taking in as it were such large doses of the poison that the whole system totters to its fall." I believe it is in just such cases he will get the most brilliant results from the baths. Mild cases do not demand them.

The benefits of the baths are:

1. *They are a powerful tonic to the nervous system, prevent delirium,* quiet restlessness, secure refreshing sleep and *keep up the patient's strength.*
2. The elimination of the toxins of the disease by the kidneys is increased four fold.
3. *They prevent complications.*
4. They lower the temperature without depressing the patient's strength.
5. They save lives.

I believe we have in the baths a specific for typhoid fever which, if used early and faithfully, will save *at least* 95 per cent. of all cases. The fatal cases recorded are nearly always cases in which they were begun late in the second or in the third week. I use some intestinal antiseptics if there is much diarrhœa. I believe in starvation. I allow patients all the cold water they will drink, but no food except milk or broths, but never urge them to take these.

Whenever I read of a death from typhoid fever I always wonder if "some one hasn't blundered!"

Dysentery.

By W. A. Murphy, M. D., Burns, Texas.

This is a specific febrile disease, confined principally to the colon and rectum, characterized by swelling of the mucous membrane, hyperemia, softning and at times diffuse suppuration. Sporadic and Endemic cases are caused by excessive heat, exposure to cold and wet, ingestion of indigestible food, decomposition and fermentation following, dyspeptic conditions. German authorities lay great stress on constipation as a frequent causative factor, usually beginning with slight indigestion and a disagreeable sensation in the bowels, rigors and occasionally pronounced chill, though Diarrhœa is the most constant initial symptom, and at first may be associated with very little pain, but usually in twenty-four or thirty-six hours the characteristic features of the disease is fully developed, abdominal pain of a griping colicy character, frequent stools with tenesmus, constitutional disturbance variable, temperature seldom registers above 102 degrees Fahr., tongue furred and moist, becoming glazed and coated as disease progresses, nausea and frequently vomiting, though usually retaining nourishment, constant desire to go to stool with tenesmus which is the most distressing symptom.

This disease in its first stage should have prompt and heroic treatment; it is a malady that cannot with any degree of safety be left to "Vis Naturae Medicatrix." In the first place the patient should be kept in the recumbent position, remaining perfectly quiet and still, the nourishment consisting of milk, broths, and whey, and occasionally two or three ounces of butter milk may be relished.

In this as in all other diseases we have no remedy that will control every case. Nitrate of silver is one of our most reliable agents, especially in the chronic form of this disease.

Ipecacuauha which seems to stimulate the secretions of the entire alimentary canal including the pancreas and liver, best preceed by tinc. Opii, which produces a partial anesthesia of the stomach, thereby establishing a tolerance of the drug. If any material complication and continual elevation of temperature salol with sulphate of quinine should be given. Kali chloras, bis. subnit. and hydrargyri chloridum mite combined may give good results.

Suppositories of iodoform will greatly relieve the tenesmus. Good results may be had from the judicious use of both cocaine and hydrargyri chloridum corrosivum.

The bowel should be cleansed out thoroughly twice in twenty-four hours with sterilized water containing boracic acid.

Tannigen also deserves a conspicuous place in the treatment of dysentery.

Statistics of the Abdominal Section in America.

The following letter from Lawson Tait to J. E. Parsons, President of the Board of Governors of the Women's Hospital, N. Y., is one of interest:

I have just had sent to me a copy of the Forty-first Annual Report of the Hospital for Women in New York, containing an address by Dr. T. Gaillard Thomas, the greater part of which purports to answer some animadversions which are alleged to have been made concerning the results of the work in that institution. At the conclusion he puts to the critics Shylock's question, "Are you answered?"

I have not been one of the critics, and only because the facts never came under my notice; but on their behalf, and on behalf of suffering humanity, I say to Dr. Thomas that they are not answered, but that, on the contrary, he makes out a most deplorable state of matters.

He puts forward a group of figures which show that in seven large selected hospitals in America the results of abdominal section run from 25 per cent. in Boston City Hospital down to 15.03 per cent. in his own institution. Of this collection of statistics I have only two things to say, that the whole thing is deplorable, and must be remedied; and that the mortality in the New York Women's Hospital is "murderous," as Mathews Duncan used to put it.

He certainly does not make the matter any better by pointing out that during a period of thirteen years the mortality of his hospital has been 22.43 per cent., and that this triumphant result has been due to the introduction of "antisepsis, the sheet anchor of the surgeon." This makes me more than ever thankful that I discovered the fallacy of this so-called antiseptic craze early in my career.

I enclose with this letter a copy of the Twenty-third Annual Report of the Birmingham and Midland Hospital for Women, for 1893; and I select this year for three reasons. The first is that it was the first year in which no work was done by myself, and the bulk of it was done by two of my former assistants, and because it was an exceptionally bad year.

As to the statistics themselves, let me say that, like those of the New York Hospital for Women, in Dr. Thomas's own words, "the surgical staff of this Hospital has absolutely nothing to do with the making of its statistics." Each case is entered by an officer responsible to the lay Committee, and each fatal case is investigated by a special pathologist altogether independent of the operating staff. At the end of each year each operator has to defend his facts before his colleagues on a Committee upon which also sit the Chairman and Secretary of the Managing Committee, and a perfect audit is made and signed. This document is published with a table upon which every case is entered under the distinguishing initial of its own surgeon, and with such details that any case can be easily identified. Any cooking of the statistics is an absolute impossibility, and only the most trivial errors have ever been detected.

In 1893 the abdominal sections numbered 176 (against 153 in New York of 1894), with a mortality of 6.2 against 15.03 in the New York Women's Hospital.

Another table is given of 1,350 cases of abdominal section performed almost entirely by Dr. Savage and myself from 1884 to 1893, with 75 deaths, a mortality of 5.5 per cent.

During these days I did all my work on plain soap and water, having abandoned every trace of the varying absurdities of Listerism two years before. Dr. Savage followed Lister in fashion of his own, varying from time to time. The work was fairly well divided between us, as also was the mortality; and, with the most careful reckoning of the figures, the verdict against Listerism must be, in Scotch fashion, "not proven," for, with its complete absence, my results were no worse, and, with its partial presence, Dr. Savage was no better.

What can Dr. Thomas have to say to this?

I have only to say that his results show that there is something radically wrong with his hospital, and that the medical profession of America, advancing as it is beyond the progress of our art in all other countries, cannot afford to let matters go on as they are.

If I may answer in one word the question which will of course follow what I have said, What is the cause of your success? I say emphatically, the absolute segregation of our patients and close attention to every detail constitute the whole of the mystery.

That there is an inevitable mortality in abdominal section I think is certain. That two men working in the same place, with the same material, should bring it down during ten years to 5.5 per cent. in a continuous consecutive series of 1,350 cases shows that the inevitable mortality is pretty nearly reached. That a removable mortality of more than three times that amount should be allowed to remain as the minimum to be reached in America cannot be admitted for a moment.

That even the low mortality we have had in Birmingham is probably not the inevitable mortality is, I think, almost proved by a little figure twisting; for if we take out four bad years, 1884, 1889, 1890 and 1893, we find 553 cases with a mortality of 8.5 per cent. But in six good years, 1885, 1886, 1887, 1888, 1891 and 1892, we had 797 cases with a mortality of 3.5 per cent. I think this latter is nearer the inevitable, and that a higher mortality than that is due to causes entirely removable. All such causes ought to be earnestly sought for, and removed at any cost.

I am, yours truly,
Lawson Tait.

How the Surgeon Lost His Fee.

One of our exchanges gives a rather interesting account of a famous Vienna surgeon, who was asked by telegraph, how much he would charge for a capital operation on Reb Chaim Rosenbaum, a young, promising merchant in darkest Polish-Russia. The reply was that 5000 gulden (£400) would be a fair compensation for the job. After various negotiations it was agreed that the desired amount should be paid after the operation was performed. The surgeon left sunny Vienna at once to emerge, after a thirty-six hours' journey, in the garlicky atmosphere of a small Polish town. There he was met by a congregation of long-bearded and long-coated individuals with long faces, who explained that the life-saving professor was too late this time, and that good Reb Chaim Rosenbaum was gathered to his fathers the previous night. The surgeon's disappointment was so much greater as the mourning survivors did not show any willingness to pay his expenses. He concluded, however, to take a day off in the town. The population heard of the presence of the celebrated surgeon, and it was not long before he saw himself surrounded by a crowd of surgical cases. He was kept busy operating the whole day, receiving fees of 50 to 100 gulden from each patient, so that, while not getting the stipulated 5000, his trip was not a dead loss. When on the following day he was entering his train to return to Vienna, an old Polish gentleman most politely approached the professor, wishing him a lot of good things, praising his skill and many virtues, and finally saying that the whole town was for ever under deep obligation to him, and to show his everlasting gratitude he would confide a secret to him. The professor could do no better than to listen, and great was his surprise when he heard the following confession: "Don't you know, dear professor, that there is some mistake about Reb Chaim Rosenbaum's premature end, and that, in fact, he found it preferable to stay with us instead of being gathered to his fathers? Among the many patients you operated upon yesterday you also operated upon Reb Chaim Rosenbaum, and, God bless you, you were satisfied to take 50 gulden instead of 5000."

Roentgen Rays in Thoracic Diseases.

Dr. T. H. Williams (Med. Record) uses the fluoroscope, which is evidently designed to succeed the cumbersome and expensive skiagraphy. He comes to the following conclusions:

1. The fluoroscope gives us better assurance that the lungs are in a healthy condition than other methods of physical examination, and in connection with auscultation and percussion teaches us in disease to interpret better the sign found by the older methods.

2. It gives us earlier evidence of disease in some cases of tuberculosis, and more accurate information of its extent, than can be obtained by the usual physical examination.

3. It gives us more accurate information of the extent of the disease in pneumonia, and of the duration of an abnormal condition of the lungs.

4. It enables us to outline the heart more accurately and completely than has hitherto been possible and to observe certain changes in it.

5. It gives us the means of making an earlier diagnosis of some cases of thoracic aneurism than any other method, and enables us in certain cases to exclude it where it has been suspected.

6. It enables us to ascertain the cause in some cases of dyspnea that would otherwise be obscure.

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The Bicycle and Gynæcology.

Fauquez, (British Med. Journal, Feb. 12, '98), lays down rules for the use and disuse of the bicycle. He maintains that the bicycle is to be recommended in cases where complete normality of the genital tract exists, for the relief of anæmia, dyspepsia, neurasthenia, sterility. obesity, deferred appearance of the catamenia in young girls, and in menopause troubles. The bicycle is a therapeutic agent in simple uterine congestion, in amenorrhœa due to imperfect development of the uterus and ovaries, or to other causes involving simple debility, including nerve shock; in nervous and congestive dysmenorrhœa; in simple deviations of the period, such as a supplementary show between the normal catamenia; and in cases of fibroid when all hæmorrhage has ceased. The bicycle is allowable in mechanical and membranous dysmenorrhœa; in displacements and flexions; in mild and painless cases of chronic metritis after labour and abortion; and in the leucorrhœa of anæmia. Lastly, the bicycle must be absolutely forbidden in amenorrhœa associated with phthisis, cancer, diabetes, organic disease of the heart, and albuminuria and organic renal diseases; in metrorrhagia or excessive menstruation; in acute metritis, perimetritis, salpingitis, ovaritis, pelvic abscess, and parametritis; in hæmatocele and bleeding fibroids; and, lastly, in vulvitis and vaginitis not thoroughly healed.

Lactation Atrophy of the Uterus.

Vineburg (Am. Jour. Med. Science):

1. Modern researches tend to prove that post-puerperal involution consists chiefly in a retraction and contraction of the individual muscle fibres, whereby the whole uterus is reduced in size.

2. When involution goes to its full completion the uterus is reduced to a size smaller than that of the nonparous organ.

3. This condition of complete involution is known as post-puerperal hyperinvolution. It is principally seen in nursing women, and from this circumstance has received the cognomen *lactation atrophy*.

4. The so-called lactation atrophy is a normal and desirable condition. It is temporary in its duration, but very rarely under favorable circumstances may become permanent.

5. When the parturient is unable to perform the function of lactation it is the duty of the physician to endeavor to bring about hyperinvolution by other means at his disposal. An observance of this course will prevent many women from developing a host of gynecologic affections which frequently result from imperfect involution.

THE

Charlotte Medical Journal.

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EXTREMES FOR QUALIFICATION TO PRACTISE MEDICINE.

In America everything goes to extremes. The condition of things is always one of feast or starvation. It seems to take a longer time to reach the golden medium of common sense than in any other country. This idea is especially well illustrated in the requirements for the medical profession.

Formerly any one could enter a medical school with no preparation whatever. A boy might come from the plough with hardly a common education, take two courses of lectures, and hang out his sign as M. D. If he were politic, he could get around the two courses in this way—by attending two different medical schools, one having a winter and the other a summer course. So by this method, he secured his sheepskin, and was ready to enter the profession, as a full fledged doctor with only one year of work.

Now all is changed and we are racing rapidly toward a climax in regard to medical preparation that should not be required. The majority of our medical schools demand a good preliminary education and a four years course of instruction before giving a diploma.

This is a great and perhaps the most important step toward attaining a proper standard of medical training in this country, for every right minded thinker must admit that four years of steady work is not too much for entrance into a profession, which requires a knowledge of so many subjects and is so diverse in its methods. But yet, we should realize that there is a proper limit even to medical preparation and we should not be carried away by our characteristic American enthusiasm and love of competition.

At the present time, the tendency with the leading schools is to admit only those students who have a college degree. We do not for a moment decry a college education, for it is the one kind of training that will help a man to attain eminence easily in any profession. But on the other hand, we claim that it should not be made a necessary requirement, for it will keep out many, who are well fitted by nature to become physicians, but who have neither the time nor the money to pursue such a course.

Furthermore, after having taken a diploma from a reputable medical college, you are required to pass a state board examination in order to secure a license to practice.

This is, in the main, a good thing as all the students of the different colleges of a certain state are subjected to the same examination, by an unbiased board. But so far, so good. But suppose you practice a year or two in one State, circumstances may call you to another. Then you are obliged to wait anywhere from three months to a year, and again you are forced to all the inconvenience of procuring your credentials anew and going through another state board examination. Suppose you live near the boundary line between two states, e g—a doctor practicing in New York City cannot go to visit a patient in Hoboken unless he subjects himself to the examination of the New Jersey state board. The reason of all this trouble and inconvenience is the fact that the certificate of one state is not recognized in another and the standard of all the different states is different. Such a condition of affairs should not be allowed to exist. A physician having passed one state board examination should be permitted to practice in any state in the union, i. e., the certificate of one state should be recognized in all the other states or the examination should be made national.

It seems strange that Americans do not learn from the hard experience of other countries and follow their plan of salvation directly instead of using up years of time, and causing endless annoyance, before pursuing a similar plan. Only a short time ago, affairs in Germany were in much the same condition, only worse. There were 44 small principalities, some so small that a man could walk through three or four of them in a day. In the same way the doctor must take a different examination for every state in which he might wish to practice and every time pay for a new license. But now the condition is different. Having once passed the national medical examination, a physician can practice anywhere in the German Empire.

We trust that the day may not be far off when a like condition may exist in the United States.

MEDICAL HYPNOTISM.

The rapidly growing importance of hypnotism in the medical field of effort, is daily becoming apparent. That its value to the profession, has been underestimated, is only too true. That its scope and operation on medical grounds, with its limitations therein, should be established, is none the less evident. That it has ever remained a too fruitful orchard for the cultivation of quackery is as unfortunate for the progress of legitimate medicine, for this fact alone as much as any other has determined a stasis of inquiry on the part of the medical profession in general, which has settled down into an almost invincible repugnance of the whole subject. Again, until a few years passed, due to the unwearied labors of Braid, Bernheim, Charcot and others, its basic laws have only been wrought out, until the field of Suggestive Therapeutics, as so understood. has no longer any terrors to the well informed medical man, and there remains now the beginnings of a science, destined to be the common, undeniable and deserved property of the medical profession. It is good for humanity and humanity's ills, as the writer has the faith to believe, that this force is to be fostered and safe guarded by the medical profession, by which it can be put to no unworthy use, to whom and for whom it ought to be legalized in every state in the Union. It is a two edged weapon, one is constrained to believe from careful observation, potent for evil or for good, according as the mind or intention or the will of the operator, is malignantly or benignantly disposed towards the person and mind of the subject. There should never be allowed by law, any public or private exhibition of its operation as such, for such permissions give to the laiety a mere smattering of the science and to unworthy and untrained minds and vicious wills an opportunity which is not lost to perpetrate an unworthy desire, motive or act as is only too often apparent in public print and private information. Laws should be carefully framed in every state, which could not permit its use in untrained and non-professional hands. There may be a public conscience which may frown upon its use in some localities but it presents no bar to its actual use or abuse, while in the medical profession, through long ages of correct endeavor, there has arisen very happily a professional conscience which sternly prohibits any misuse of the various armentaria, which may have fallen into the hands of its votary, through accident or discovery. The laiety therefore, much as it may discredit this statement is protected from itself, by the trained physician. The field of medical hypnotism should therefore be culled and garnered by the medical man alone as much as the domain of ordinary practice. For our protection and for the protection of the laiety, medical hypnotism must be thoroughly mastered, for although, it promises the richest results in functional disease, indications are already noticeable that it may, in a measure, be applicable to the staying of organic diseases.

NERVOUS PROSTRATION.

If there is any one field in medicine which demands the closest scrutiny, the most pains-taking research, the most careful examination of mind and of body, as to the relation of cause and effect, it is that known as Neurasthenia. And yet how careless is the average practitioner who, after listening to the recital of his patient's woes and subjecting him to an ordinary and cursory physical examination, and obtaining the family history, at once declare him to be the subject of Nervous Prostration, prescribing drugs, rest and quiet, and freedom from his usual occupation. It is quite safe to assert, that the examination, as usually conducted, is but perfunctory, to say the least, and that not more than one-half of the body area is gone over by the physician, in order to obtain a primary or even a secondary cause of the existence of those distressing symptoms which mark the victim of neurasthenia. It is indeed a beautiful term, an accommodating phrase, nervous prostration, to such a physician, for it covers a great lack of diagnostic penetrative ability on his part, and leaves the patient just where he was before, to agree with him and to hug to his senses the fact that he too has caught the fashionable disease, which will cost him more to cure than any or all of the diseases or complaints, which heaven sends us poor mortals. It is, of course, not for one moment to be denied that there is indeed such a nosological entity as neurasthenia, but it is really too true, that in such cases, the mind and the spine, are given an etiological latitude of inquiry, to a degree, not at all commensurate with the real causation of this complaint. The pains-taking physician, however, will not be satisfied, until he has gone over every inch of space of the sufferer's body in his examination. internally as well as externally, before he will direct his attention to the workings of his mind, or to the operations of his nervous system, in its entirety. There is a non-equilibration of the nervous systems somewhere, but what is the causation thereof?

It must be sought and found, before any progress in insight or cure can be effected. Is it due to a shock, to over-work, to autotoxæmia, or what-not, or is it due to a cause referable to some obscure disturbance, functional or organic, in the tract of the sympathetic nervous system? The ailment is so common and becoming so widespread, that it is more than well for the profession, to carefully enquire into its etiology at all times, opportunities and in all cases. To be sure, the stress, and worry, and strain of the competitive existence of modern times, has something to do with its rationale, indeed very largely to do with it, but should we be content with that as a causation? Does not this very factor interfere with the normal nervation of the sympathetic, and if so, in what way, and at what point in its tract? Existence, in a way, is vegetative, the sympathetic has been called the nerve of vegetation. Therefore, why leave this out of our ordinary diagnostic calculation, content with the results, which at best are extremely scanty, which pertain to the usual estimation of the causes which lead to the existence of this evil now become so widely prevalent? Cannot some of the readers of this Journal, present it with a paper upon this topic, embodying therein a case or two, illustrative of its etiology?

IS THE NEW ALWAYS NEW?

We are accustomed to speak and write quite authoritatively concerning therapeutical means and appliances which we regard as very recent. Now the terms new and old are purely arbitrary and relative ones. A book which speaks with a tone of authority to a large proportion of our race contains these words: "The thing that hath been, it is that which shall be; and that which is done is that which shall be done; and there is no new thing under the sun."

Edward W. Jenks, M. D., L. L. D., in his "Historical Sketch of American Gynecology," says of his subject, that "gynecology is singularly rich in illustrations of the belief that progress is in the direction of a circle rather than in that of a straight line, and many of the brilliant discoveries with which it has been enriched in modern times, and even in America, were really but rediscoveries of discoveries which the mutations of time have effaced from the memories and records of men."

Then he cites how familiar the Egyptians were with the sexual peculiarities of women; the clear description which Hippocrates gives of uterine cancer; that two specula were found in the ruins of Pompeii and Herculaneum; that Artius described the uterus, ovaries, their structure, function, &c., with mention of the sound for correcting displacements of the womb.

Even bacteriology is not so recent as we think. According to Prof. Semmola, of Naples, Latour announced in 1825 that if brewers yeast fermented sugar, this was the same as the generation of life.

Massage is no novelty, as Sir Astly Cooper when he failed with a stiff joint, sent it to a "rubber" near Cambridge. Massage has been long practiced in the East under the term "hand-grasping."

A so-called new remedy for epistaxis has been going the rounds of medical literatura, viz.: raising a blister over the liver. But Galen advocated the same thing.

When the gaseous enemata craze as a cure for phthisis was the rage, it was shown that Girtanner, in 1795, caused his phthisical patients to use a mixture of carbon dioxide and common air. Examples like the above could be multiplied, but these will suffice to show the ancient origin of many things regarded as new. Even in the nomenclature of new drugs, the old-fashioned methods are employed, and they are named in accordance with their supposed action. Thus we have antipyrin, antifebrin, and other "rough on fevers," as they have not inaptly been styled. So the British Medical Journal goes on to say: "If a drug which lowers the temperature in fever is to be called anti-fever, then we shall have others known as pain-killers, or diarrhœa-producers. It would be going back to the 'mistura tussis'; or the 'bolus purgans' of our ancestors."

THE CONTAGION OF TUBERCLE.

The over-enthusiastic gentlemen who can see the whole science of medicine with one eye, down the tube of a microscope, and who would found a system of therapeutics on the gambols of guinea-pigs, will perhaps never engage in any thing more injudicious than their present attempt to rank pulmonary tuberculosis among the contagious diseases, and to require the registration of cases with local boards of health. The contagious character of any disease is not to be established in the laboratory. For such highly contagious diseases as scarlatina and variola, no germ has as yet been found; for malaria, on the other hand, the micro-organic cause is as well known as is that of tuberculosis. The discovery of the Koch bacillus should not, therefore, affect our views as to the communicability of consumption.

The real cause of tuberculosis has long been so well understood that the question "of what did your parents die?" is asked both for diagnosis and for prognosis. Every general practitioner has in his clientele subjects in whom he justly fears the development of tuberculosis; not because they have been in contact with tubercular subjects, but because of the ominous heredity, the sedentary habits, the narrow chest, the shallow breathing, the intractable anæmia. And when such a case is to be treated the advocates of the contagion theory lack the courage of their convictions; even they treat it not by strict isolation but by residence in a special sanitarium in some region world-famed for the number of consumptives that resort there. In view of the good effects of such a residence, and of the continued immunity of the natives, even of those employed in immediate attendance on the sick, the contagiousness of tubercle should be banished from the realm of serious consideration.

SURGICAL CASE REPORTING.

The careful report of special cases of surgery or medicine when made with the distinct view of instructing the profession, instead of exciting the admiration or envy of some members, or offering demonstrations of special ability for the sake of personal gain of patronage, is an important branch of medical literature.

I shall never forget an instance where a lady physician of high standing, who had secured my highest respect, came before a local medical society and exhibited an uterine fibroid which that day she had successfully extracted from her patient. There was nothing of a special interest in the tumor itself, but to have shown it to the society would be an act of kindness which would be appreciated. In this instance the exhibition so much resembled the stage effect of an Indian warrior who has secured a scalp and flushed with pride presents it to his tribe as a bloody trophy of his personal achievements, his glory, his greatest ambition, that I have never since been able to hold her in the same high estimation as before.

In reporting a number of successful operations the writer should always bear in mind the object of case reporting, which may be sumed up briefly as follows: The establishment of data for prognosis; the estimation of the value of a given method or technique of operation in a particular case; the description of deviations from regular methods required by special complications; the definition of pathological changes in their relation to surgical operation, including the complications by involvement of contiguous organs or special vessels.

In forming data for purposes of prognosis one should give details of age, family history, previous history, marriage history, sex, habits, diathesis, temperaments, deformities, and full particulars of present sickness. Prognosis should be considered in regard to immediate recovery from operation, for future good health, and suffering, and future life. To prove the value of a given method not only the details of the method should be given but the worth of each detail should be demonstrated when possible by citing examples where this or that detail has been modified or omitted and the apparent effect noticed in the result. All operators are obliged to deviate from a particular technique or method at times, in order to overcome the complications of particular cases. These changes are often original, are determined spontaneously by the judgment and genius of the operator, are of various degrees of adequacy and form a foundation for the special characteristics which distinguish a given surgeon.

The study of pathology in its relation to life and operation is of the greatest importance. In the laboratory the histological changes can be determined, and by comparing these changes with the details of each case, the particular complications, the extent of changes and the perfection with which they are overcome by operation in conjunction with recovery and duration of life, we can form a basis of opinion upon which one can advise a given patient of a particular case.

Since case reporting forms a true method of instruction which belongs to the practical side of medicine, illustrations are of great value. As the finest depiction of a tumor or organ is not always the most instructive, the virtue of diagrams must be recognized and the illustration, therefore, should not only be as true to nature as possible, but also sufficiently diagramatic to express the wishes of the writer.

"HAND SHAKING."

From time immemorial people have had different ways of greeting. The way our forefathers did and the way we have been accustomed to seems to us all right. The ways of other people, and foreigners particularly, seem cumbersome and even ludicrous. No doubt something may be said in favor of the customs of any people, and as much of our manner of greeting as any in the world. Who does not appreciate the hearty firm grasp of one's friend? Every one I am sure, but like many other usages this has its disadvantages and limitations. In calling attention to the disadvantages of this practice it is not my intention to speak of the ideal, but rather the practical. The practical sanitarian must see things as they really are, and not as they should be or as he would have them. There is a big difference I am sure. From the standpoint of the ideal there can be no disadvantages or danger to any one concealed in the hearty social custom of hand-shaking. You may think it ridiculous for any one to suggest that your friend may have unclean hands. However, if you are a public man, professional or business, custom requires you to shake hands indiscriminately. Even if you are not one or the other you can not escape the disadvantages of the custom, for a perfectly clean hand is only obtained by the most pains-taking care and is soiled by the slightest touch. If Diogenes were living he might find his search for clean hands as vain as for an honest man. Our hands may be clean when we leave home, but we must come in contact with the street car, or other means of transit, and the door knob of the office or store. It is not reasonable to suppose that the many hands of the public before us have all been clean or even free from disease. Many men, and women too, as for that, go to the lavatory, so-called, to urinate or defecate and never think of washing their hands unless otherwise soiled. These things are not without some excuse in the country where the stable, field, or road-side furnish the convenience of a lavatory. Subjects of gonorrhœa or syphilis may thus inoculate innocent persons. With the friendly grip of the hand you may receive on your person, perhaps, a poison more to be dreaded than the venom of the adder. You may shake hands with a man, perchance rub your eyes, or even in removing your glasses place the gonococci where they will do their deadly work.

A common habit, and one I hesitate to mention, is the use of the fingers in blowing the nose. Whether this is followed by the use of the handkerchief or not, the fingers are soiled. The masses seldom use a handkerchief, and when they do it is so soiled that it makes little difference whether they hastily wipe on that, the trouser leg, or apron, for the hand is soiled and may contain the germs of disease. The child, and even the infant, is not spared. The soiled hand must needs take hold of innocence and purity itself. The infant as ignorant of the danger as the masses, places its chubby, dimpled fist in its mouth, or rubs its bright, laughing eyes, and the mischief is done. Space will not permit me to mention more observations of this kind. By calling attention to the disadvantages of this custom, as well as many dangers, I trust we may lessen the evil at least, if not help banish the custom altogether.

SCIENTIFIC THERAPEUTICS.

To one with an adequate appreciation of the limitations of our biological knowledge attempts to establish a science of therapeutics are nothing short of ludicrous. Take as an example the antitoxin treatment of diphtheria, much vaunted as a pure scientific research, free from the slightest touch of empiricism. Yet, if we wished to give a reliable definition of antitoxin, we could perhaps do no better than to say that it is an unknown substance—or possibly a property—developed in the blood-serum by physiological—or, perhaps, pathological—process, of which we as yet know nothing (though we suspect that the white blood corpuscles—or, may be, only a part of them—have something to do with it) in an animal subjected to ascending doses of the poisons—which have not yet been isolated—appearing in pure cultures of Klebs-Loeffler bacilli.

We might add that we have found by trial that this X of immune blood-serum relieves the malign effects of inoculations with Klebs-Loeffler bacilli, though the exact method in which it does this is as yet under discussion.

Now this is very far indeed from the language of science, but any thing more definite would involve hypotheses which are as yet unproven.

Were we asked to enumerate our most satisfactory therapeutic resources we would probably name quinine in malaria, mercury in syphilis, and salycilic acid in rheumatism. Now it is a familiar fact that each of these remedies was adopted long before the pathology of the corresponding disease was definitely determined. In fact all our best therapeutic work is guided solely by experience and observation untrammeled by theories.

ANÆSTHETICS.

The safety of the patient depends more on the manner and care with which an anæsthetic is given than on the selection of the anæsthetic. Chloroform is looked upon with distrust by a majority of the profession. yet, nevertheless, sometimes patients die under an ether narcosis. Mixtures of both have been tried long ago without any appreciable advantages. At the present time Schleich's solutions, in which another method of mixing the anæsthetic is used, are much extolled. Solution No. 2 is composed of $1\frac{1}{2}$ oz. chloroform ; $\frac{1}{2}$ oz. petroleum ether, and 5 ounces sulphuric ether. Reliable chemists say, it is not a solution, but that by mixing the fluids, it remains a "mixture"—each ingredient acting by itself.

As the tendency of the profession is to plunge headlong into the use of the anæsthetic, because some operators have read papers on it, it may be well to raise the sign of "lookout for danger." We have heard that conservative operators do not agree in giving it general praise, and that they do not like Schleich's solution. In one public institution, in New York, a patient was nearly lost by it, and only by great care and work was saved from death. It had been used ten times after which it was abandoned. Another new way to use anæsthetics promises better results. It is given with one inhaler (Glover's) and consists of three stages. First, nitrous oxide gas is given, and the patient is anæsthetised in one minute or less ; second, sulphuric ether is added, and third, the latter continued with the occlusion of the nitrous oxide gas. During an operation, lasting more than one hour, only four ounces of ether are used. The patient enters narcosis pleasantly without any struggle, comes out without any depression, and has no unpleasant after effects. We hear that a more minute description of this method will soon appear in the N. Y. Medical Record.

OBSTETRICS OF THE FUTURE—IDEAL TREATMENT.

With the evolution of aseptic surgery, the private hospital has been engendered. It met with great opposition at first. The masters of surgery were worthy men who were at the head of large clinics, with a public hospital at their back. Their supremacy was made by the position which they held, the position was made by the public but attained by influence.

In the beginning many of these surgeons took their patients to the private departments of the large hospitals and were opposed to the practice in smaller private establishments. With the advance in methods, expensive paraphernalia, and equipment, came into vogue and was deemed almost essential for the highest class of operative work. With this came the details of aseptic surroundings which, for perfection, required isolation of the cases, one case only to the room.

Many patients prejudiced by the reports of the experience and treatment of the poor in large hospitals, and biased by pride, refused to go to the large hospitals for operation.

The increased difficulties of operating at the home of the patient, the lack of ability to render the same after-care, the consequent increased suffering and danger have all acted to create in the private hospital a laboratory equipped for the most complete and perfect work in surgery. The result is that to-day those who can afford it go to the private hospital, for any severe operation, and the expert surgeons for the most part are in touch with some institution of this type, if they do not control one of their own.

While there has been a rapid stride in the advance of surgery to this end, in obstetrics, the twin sister of gynæcology, and close relation of surgery, the development has been much slower. It is true that the principles of asepsis have been recognized by the obstetrician, and the practice of aseptic midwifery has been placed on a firm basis, but as yet the profession has failed to see the advantages of the private hospital for the care of obstetric cases, or at least has failed to make use of them. There can be no mistake that a large part of the troubles of women come from the effect of child-bearing. The severe laceration of the parturient canal, with subsequent infection, forming the foundation of the trouble. The care of these cases at home, cases that require as much attention to detail as many severe surgical operations, where the dangers of accidental infection from strange assistants, surrounding, etc., are very great, where the means for surgical repair are limited, where proper assistance can be secured only with difficulty, or only by alarming the patient or exciting the friends, where injuries to the canal can only be repaired at a risk on the part of the obstetrician of his being condemned for inability, this care can never compare with the care in a private institution with surgical nurses at hand to prepare their patients for delivery in the same careful manner that they would for an abdominal section ; with the necessary utensils, and reagents, garments and dressings, for carrying out the details of the work ; with the obstetrician to care for the delivery, specially trained in his art, and a surgeon at hand to repair such injuries as have occurred during the delivery either immediately or shortly afterward. Thus we obtain good nursing, good practice of midwifery, and good surgery when required ; a trinity which will do much in the future to remove the dangers of midwifery and prevent many of the conditions forming the basis of ill health in women.

The concentration of the work in small hospitals will make the labor easier for the physician and less offensive, as he will not be robbed of as much sleep or rest. Hospitals at present designed for midwifery cases are for most part stigmatized by the care of illigitimate or shady cases. The support of these institutions should come from the best type of women with the idea of advancing to the highest point of perfection, that most important branch of our professional work, the skillful parturition of pregnant women.

PRIVILEGED COMMUNICATIONS AND INSURANCE CLAIMS.

By statistics in the various States communications made by a patient to his physician, and information acquired by him while attending a patient in a professional capacity, and which were important to enable him so to act, are protected. The privilege extends to facts necessary to enable the physician to prescribe. and which are communicated to him for the purpose of enabling him to perform his professional duties. Such facts are privileged whether learned directly from the patient himself or acquired by the physician through his own observation, or examination. Further it does not extend. The privilege is not necessarily terminated by the death of the patient. In a New York case, the judge said: "After one has gone to his grave, the living are not permitted to inpair his fame and disgrace his memory by dragging to the light communications and disclosures made under the seal of the statutes."

The above is a quotation from the "Encyclopædia of Law," title "Privileged Communications." If this is good law, how is it legal for the attending physician in filling out the blank used in making a death claim to answer the question: "For what disease or diseases have you at any time attended the deceased?" This question is found in the blanks used by most of the insurance companies. The authority quoted above further says: "An executor or administrator does not represent the deceased for the purpose of making such a waver." No one but the deceased can remove the seal of secrecy from the lips of the physician who has treated him during life for syphilis or dipsomania, or indeed for any disease. The fact that the man has possibly lied to the insurance company does not affect the privilege; many jurists claiming that even criminal acts do not affect the protection. It is possible that the deceased in making his application, may have waived this protection, but this refers to the time of the application and not to the future, or to any future communication. Moreover this "waiver" is found in the applications ot few companies. The fact remains that there appears to be good reason to question the legal right of any company to compel an answer to such a question, which, if answered truthfully, will often form the evidence on which payment is refused.

OUR AUTHORITIES.

Who are they, and what have they done to make them great? It is best that we make no attempt to name them lest we offend many thousands who make the claim for themselves, without warrant or assistance. My gentle reader you must know them without any introduction from me for they fill the earth with their greatness. Woe unto the poor ignorant doctor who has not heard of them. They know all things, and their word is law. They are great surgeons, specialists, and mighty men of valor, who have risen from the ranks of the common herd. Let the general practitioner, and all listen to their wisdom, and humbly submit to their decision, from which there is no appeal. What have they done? Done! Why everything. Have they not contended that the human blood vessels contained only air, or air and water? That water would kill a fever patient, and that teaspoonful doses of calomel, frequently repeated would cure fever and all other diseases? That pus was necessary for the proper healing of wounds and devoutly to be wished for in surgery? That bleeding would certainly revive the exhausted, and leeches were the sine qua non? That vaccination would not prevent small pox and was criminal, at the same time liable to make brutes of people? What have they done? I repeat: Have they not compelled us to give our poor gullible patients portions of snakes, scorpions, beetle horns, sebaceous matter from the castor, and testicles from the lamb? Have they not endorsed Koch's tuberculin, and Hammond's elixir of life? Then that delicate food for tuberculosis suggested by great intelligence, a relic of civilization—the blood of the ox and dog. I will no longer stimluate your memory of the bitter past by such questions, for your patients are exhausted and so are mine; but will give you a few more choice bits from the authorities, and leave your conscience to recuperate and your mind to ruminate over these things. They suggest that extraot of the brain will cure insanity and all nervous diseases. Extract of testicle and ovary will cure sterility and impotency respectively. So on and on till there is nothing to be desired, for no one need die, or even grow old. Recently there has been a great revolution amongst the authorities. They have changed their minds from fad to fad so often that it now becomes easy for them. Their latest fad, however, was such a tremendous leap in advance that they feel especially proud of the feat—a not unusual thing. Don't you know? Germs! germs! germs! Everything is due to germs. They are literally eating up the earth. Germs are the cause of all our troubles, from pregnancy to tape-worm; from a sore finger to the tooth-ache. Statistics will prove this beyond a doubt. Now comes the funny part (if it was not so serious) of it all:—The authorities now propose to cure all diseases according to their latest fad, of course they can only be cured that way. As usual they (the authorities) are divided on how to accomplish this; but all agree that killing the germs cures the disease. *Statistics prove this.* Some contend that the best way to kill the germs is by feeding them on themselves. Like kills (or cures) like, you know. If the authorities were compelled to take their own medicine they would all die. What a pity! The other side contends with equal zeal and wisdom for a more humane method. They think it cruel to make the poor germs cannibals, when they (the germs) are so particular about their food, you know. So they tinker with some old horse or ass, call them names, then bleed these animals. Poor things they think it fairly good treatment, they haven't evoluted past the bleeding fad, you know. This blood serum, or what not, when medicated a little, according to the homeopathic doctrine will cure all ills to which human flesh is heir. All that is necessary is to change the name to suit the disease and bravo! you have it. *Statistics prove all these things.*

MORAL.

Let each doctor treat the patient and not the disease. Let us beware of fads and frauds. Let us think for ourselves and *above all things cultivate the faculty of close observation.* This has been sadly neglected. Let us follow blindly no man, but think and practice conservatively. Time will prove all things and tell posterity, who our authorities have been.

MODERN DOSAGE.

Of late years, the trend of the regular profession, has been to administer medicine in more palative form, This meets the approval of all. But there are a few who are disposed to dispense our medicines in infinitesimal dose. Our fathers in medicine carefully determined the amount of a drug necessary to produce a given physiological effect. For us to render the drug more palatable, is evolution. But to make so radical a change in the dose, borders on revolution. If called to treat a patient, with foul tongue, engorged portal system, alimentary canal loaded with septic matter, and we believed a full dose of calomel indicated, we certainly would hesitate to prescribe one-twelfth of a grain every two hours. But the plan of reasonably diminishing the dose, and proportionately shortening the interval between doses, is more consistent, and is being adopted by many physicians. And it appears that with some remedies, this mode of administration produces pleasing effects. For instance, if we administer six drops of the tincture of aconite, every three hours for nine hours, or one drop every half hour, during the same period, about the same quantity of the drug will have been given. But the small dose at short intervals, will be far more potent in tranquilizing the nervous system than the large dose given after longer intervals. The physiological effects of sedatives and stimulants are transient, and in order to maintain a continued impression, remedies addressed to the nervous system, such as aconite, strychnia, belladonna, gelseminum, and brandy, will exert more pleasing effects when administered in small doses, repeated after short intervals. On the other hand, remedies used as anti-acids, anti-septics, and germicides, such as bismuth, pepsin, salicylic acid, quinine, &c., accomplish the greatest good when administered in large doses after long intervals.

THE MARRIAGE CERTIFICATE.

From the beginning of civilization to the present time society has seen fit to regulate the union of the sexes. These requirements have faithfully mirrored the advancement of any people. The home with all its sacred ties has evolved from chaos. That home forms the unit of society and the pillar of our national superstructure. The real advancement, strength and glory of a people is to be found in the security and refinement of the home. The old objection to the theory of evolution that we are not evoluting now falls to the ground without a support; for the evidence of evolution accumulating around, beneath, and over us is as plain and unmistakable as noon-day. The earth moves, progress is in the air, and the watchword of every enlightened heart. The law of the "survival of the fittest" must be given a broader meaning than ever before. We must not only be the fittest in a material sense but morally and intellectually as well. To accomplish all this, we must elevate and purify the home. As the foundation of the home is the marriage contract, any regulation of this, tending to secure these objects should be hailed as real evolution. Now the laws of our country, representing the demands of society, are far behind these requirements. They are not much in advance of the Mosaic and other ancient laws on this subject, while our knowledge of the laws of nature, the evolution of races, nations, the sterner conditions and higher requirements of the age in which we live, cause us to demand an improvement of these laws. The marriage certificate then must mean more than that two individuals of opposite sex and certain relationship are to establish a home. *It must be a guarantee to society that these two individuals are worthy of the privilege and honor. It must be a pledge that their offspring will be fit to survive the environment and meet the moral and intellectual requirements of to-day.* False humanitarianism alone stands in the way. Remove that obstruction as you would a putrefying body and bury it with the offal of society. The criminal objection to law, and the unchaste jealousy of virtue, the abnormal of body or mind, the syphylitic, tuberculous, insane, epileptic, feeble-minded, confirmed drunkard, confirmed criminal, or perverts of whatever kind have no right to continue to curse the earth with the procreation and increase of their kind. By the laws of nature they should perish. Only those fit to meet the conditions of life and the higher demands of society should be allowed to increase. The best interest of humanity dmands that these should not be allowed to marry, or at least be permitted to procreate their kind.

SUBJECTIVE SYMPTOMATA.

One of the most common mistakes made by the average practitioner, is his too evident proneness to hastily attribute the actual suffering of the patient to the power of the imagination. There is a clinical difference to be entertained in the professional interpretation of the word imagination, as pertaining to the operations of a diseased mind and as too often employed in medical parlance. In the former no mistake is possible, but in the latter, the patient is often very unjustly treated. The reason for this lies in the fact, that in the hurry and worry of a busy practice, no proper and acute distinction is made between the symptoms of a given case as they apply to the objective or to the subjective field of pathogenesis. It is very easy to interpret the objective symptoms as they declare themselves through the five special senses, for they can be verified, in a measure, by the medical attendant, and therefore very justly weighed, as correctly appertaining to the case in hand. But when the poor sufferer seeks the physician for the relief of subjective sensations and symptoms, so apt to be concomitants of purely objective indications of disease, presenting a catalogue of the same to be eliminated, by the physician, the latter at once sets then down in his mind, as either imaginary in origin, or due to "nervousness", or too often to pure "cussedness," Just as surely as objective symptoms are and must be reckoned with as factors in the elucidation of disease, just so surely must the subjective complaints of the patient be entertained as explanative thereof. To neglect their existence, is to lessen professional acumen. Their origin must be sought for, and they must be combatted as well as objective symptomata, sometimes more energetically. Does an emphatic assurance on the part of the physician that these symptoms are all imaginary, that they are due to nervousness, that they will disappear with the amelioration of the grosser and more objective symptoms, produce the desired effect, in their disappearance? Is it not, on the contrary, a gross imputation on the intelligence of the patient, by the medical attendant, that leads the latter to give the former such a puerile intimation? Does not the patient know that himself?

It must be remembered by the profession that these so-called obscure subjective symptoms assuredly have their origin. They can not be explained away, without an inquiry into their physical and not their mental causation, alone, as resident in the mind of the patient. They are just as surely in the physicism of the patient as in the psychism. To what are they or may they be due? Does the so-called reflex activity, as ordinarily held as indirect explain their origin? Is not the term "imagination," "nervousness" an excuse for unworthy ignorance? Is not their origin due to direct rather than to indirect innervation of the abdominal sympathetic? Should not the untoward and baneful rasults of compression of the sympathetic nerve, be more widely and better understood, as the *fons et origo* of subjective symptomata?

PROFESSIONAL COURTESY AND CHARITY.

At a recent meeting of the South Middlesex Society of Massachusetts Dr. Herbert L. Burrrell at the close of an able paper on erysipelas and asepsis in surgery, after showing conclusively that asepsis in surgery could at best be but relative, appealed to the members present to be more charitable in their criticisms of the results in the surgery of others. He touched a vast theme in this advice which should be endorsed by the best members of the profession, and applied, not only to surgery, but to the whole domain of medicine. The competition for practice in many country towns and villages is so great that there is much rivalry and bitter feeling between the different physicians of a given place, and often it is difficult to find more than two doctors on agreeable terms with each other; and there would not be this dual relation, were it not necessary at times for one to call on another for asistance. What is true of the smaller towns and villages is relatively true of the larger cities where cliques and rings operate for their mutual welfare at the expense of outsiders.

That this condition should exist among a class of people educated to the standard of the average physician, is certainly deplorable. It leads men to make the most acrimonious statements about each other; to undermine their own value and respectability; to make statements to patients that are false, without foundation, often easily disproven, for the sake of winning these patients to their own practice; it injures their personal respect and blunts their conscientious scruples; it makes enemies instead of friends, brings regrets instead of joy and happiness; and instead of working for the good of the profession as a whole, it exposes this class to the ridicule of the public at large, which is reflected upon its every member.

The false, uncalled for, oftimes malicious criticisms of a physician has cost many a brother practitioner a lawsuit. injured his reputation, and done him an injustice that is irretrievable.

In no other position is the old adage, "Silence is golden", so figuratively true as in the practice of medicine. That "silence", when judiciously employed, has brought success to many a physician.

How many are there among us that respect the opinion of a blatant discourser, who advises, like a gossiping woman, upon every subject, professional or non-professional, which his daily intercourse in the private homes and places of his practice present to him.

The people, as a rule. place a great value upon the remarks of their physician, they store them in their mind and quote them *ad libitum*, often with a disastrous freedom of translation, and at times and places where great harm may accrue therefrom, or results that are not at all complimentary to the family doctor.

In our professional contact with patients it should be our aim to limit our remarks and advice to that which is absolutely necessary for the patient's good, and to avoid strictly any statement or action that may cast a reflection on the work, result, or advice of others, unless this work is unprofessional or legal malpractice.

By raising the dignity and character of another, with whom the public is bound to associate you, you will thus increase your own estimation; by depressing him you lower your own.

AMPUTATION OF THE THIGH AT THE HIP JOINT.

Amputation of the thigh at the hip joint is justly considered one of the most dangerous operations. The more important element of danger is the loss of blood. To avoid this there have been many variations in the details of the operation. At present there may be said to be two distinct methods employed: First, that by which all the blood vessels are compressed from the surface by an elastic ligature, before the knife is used at all, and Second, that by which the blood vessels are tied as the operator proceeds.

It is very easy in amputating the leg, or the thigh anywhers blow the hip to first use an elastic from the foot to above the part which is selected for amputation, and then pass an elastic ligature about the limb and by these means do a bloodless operation. But when it comes to amputating at the hip it is very difficult to retain the ligature in place. For this purpose there have been various devices adopted, Wyeth's transfixion needles being the most in use at present. The objection to this method is that after the muscles have been divided they retract enough to allow some displacement of the elastic ligature and a great deal of embarrassment in properly securing the vessels may be the consequence. For this reason the other method has been adopted by some. The skin is divided first, so as to form a suitable flap, this is dissected back. The femoral artery is then ligated and divided; then the other vessels are ligated and divided as they come into view, of course some smaller vessels are divided without being recognized, These are closed by compression forceps and ligated in the usual manner. The objection to this method is that it is much longer than the other, but it certainly has the advantage of being very safe. Performed in this manner the operation is very much like that of removal of an hypertrophied thyroid gland. Here, of course, compression with elastic ligature cannot be used, and the blood vessels must be tied as they are discovered during the operation.

The most rapid operator can hardly perform amputation at the hip joint after this method in less than an hour, or an hour and a half. We have seen so good a man as Riedel, of Jena, Germany, occupy two hours in its performance. But it has the immense advantage of safety, it being possible to amputate with absolute certainty that the blood vessels can be ligated as they come into view; whereas by the other method it is possible that there might be a considerable hemorrhage before it could be controlled.

THEORETICAL CONSIDERATIONS IN REGARD TO THE TREATMENT OF TYPHOID FEVER.

The asserted success of a method recently exploited for the cure of typhoid fever has led to a great deal of loose reasoning as to its method of action. The essential point of the method is the combination of purgatives, intended to remove a part of the intestinal contents, with antiseptics which will prevent fermentation of the remainder. The originator of the treatment seems to assume that the essential anatomy of typhoid lies in the intestinal contents. That this is not the fact is a common-place of ordinary clinical experience. In certain cases it is possible by careful regulation of diet to avert tympanites and abdominal distress, and to reduce the intestinal discharges to one or two movements entirely normal in color, odor and consistence.

Yet such happy result will not interfere with a typical course of the disease. That a patient with typhoid is the better for a sterile intestine is not denied. Just so is he better for moderate temperature, for a strong pulse, for regular sleep. The point insisted on is that intestinal antiseptics, as such, will no more cure typhoid fever than will cold baths, cardiac stimulants or hypnotics.

Any drug taken into the system must act on the disease either after it is absorbed into the blood, or by local application to the lymphatics of the intestinal wall and mesentery. From analogy it seems unlikely that much would be accomplished by the local application of any remedy. Constitutional ulcers elsewhere, for example the syphilitic and the diabetic, are little influenced by local measures. Furthermore all practical men realize how very difficult it is to sterilize an infected mucous membrane. For example the Klebs-Lœffler bacilli have been known to persist in the throat of a convalescent in spite of weeks of energetic swabbing and spraying.

These considerations make it unlikely that any such drug as guaiacol can have any great influence on the course of the disease except as it circulates in the blood and shows toward the germ, or its products, some such specific relation as quinine has for the plasmodium malariæ. The determination of such specific effect will rest on clinical observation, and the only man who is entitled to a hearing on the subject is the man who has tried the drug and has witnessed its success or its failure as the case may be.

A PLAN FOR OTHER THAN DRUG TREATMENT.

Generations of physicians have by precept and obedience served to strengthen the tenacious hold which drug treatment has acquired over the medical profession. It has become a sine qua non of practise. The prescription is as natural a sequence of the doctor's visit or the patient's call, as the ring is of pressure to his electric button. The public is as devoted a worshiper of this fetich. Would the average patient consider that he had received the equivalent of a fee, if the time honored prescription were not in his pocket or on his table, after he had seen the doctor.

And yet how often does not the latter's conscience revolt against this unwritten law? Again and again the most carefully adjusted medication has failed to cure or relieve, shattering the hopes of the patient and undermining the prestige of the doctor. After making a diagnosis of the disease we are called on to treat, making it as definite as thorough investigation, subjective and objective, permit, let us first of all consider the necessities of the case other than drug treatment. A consideration of diet, rest or exercise, and hygiene enter into the successful management of every case. If an acute disease, accompanied by fever, hydrotherapy, rest, and diet will often be all that is required. If the disease be chronic, then in addition to the remedial measures already mentioned, let us weigh the merits of electro-therapeutics, rest cure, mental or physical, or both. massage and passive motion, climate and natural mineral waters, pulmonary gymnastics, inhalations, with or without cabinet, dress, bicycle and others. If drugs are necessary, be mindful, primarily, of their undesirable and ill effects. What potent drug is not a double edged sword? The classic corrigent does not always corect satisfactorily. Then if the anticipated advantages outweigh its dangers, use it alone and prove how you have succeeded in accomplishing your purpose. In pursuing such methods in our battle againt disease, in relegating drugs to their appropriate position, the clerks of the neighboring pharmacy cease to be the doctor's competitor and critic.

But, what is even more important, we loosen the hold which patent medicines, unstinting in their promises of universal cure, have taken on a credulous public. In robbing our own methods of a profitless mystery, we teach our patients to mistrust the vendor of nostrums brimfull of venal solicitude for the health of his prospective patrons, and rend the nebulous halo with which the charlatan would surround himself. Much of the treatment, aside of drug administration, is most satisfactorily applied by the physician himself. He can watch its effects and determine its feasibility. Knowing his patient's physical condition, he can graduate accordingly, combating and overcoming the disease, without impairing the vitality. Thus the physician attaches his patient more firmly to himself, and if he be wise, makes himself and his services indispensable.

The field of pathology is wide and broadens from day to day. That of therapy is narrow and valuable additions have come to us few in number and at long intervals. At all events they are not beyond the capacity of acquisition by the industrious and conscientious practitioner. By making himself familiar with all the newer curative methods, in which drugs have usually played ephemeral roles, his services will approach more nearly in quality those of the specialist and be valued accordingly.

BOOK REVIEWS.

THE AMERICAN YEAR BOOK OF MEDICINE AND SURGERY, being a yearly Digest of Scientific progress and authoritative opinion in all branches of Medicine and Surgery, drawn from Journals, Monographs and Text Books of the Leading American and Foreign Authors and Investigators. Under the general Editorial charge of GEO. M. GOULD, M. D. Philadelphia: W. B. Saunders, 925 Walnut Street, 1898.

Notwithstanding the constant additions to medical and surgical literature it is impossible for the practitioner to keep pace with the activity displayed in research and discovery in every branch of medicine, or even as regards his special department. New diseases and new phases of old diseases are continually being met with in active practice; the invention and application of improved apparatus to meet new conditions are of rapid occurrence; and, besides, there has originated in medical science a multiplicity of divisions, all of which seek recognition in, and have given rise to, an immense increase in periodical literature. This wealth of medical and surgical literature, which presents, practically from day to day the history of these advances, preclude individual study; therefore to keep abreast of the times the progressive student must have recourse to some more concrete means of investigation—namely, through the medium of the united labor of many, of which the "American Year Book" is a conspicuous example.

This work is the annual review of the improvements in our means of defence against disease made during the foregoing twelve months and in these days of overproduction it cannot be regarded as superfluous. To the busy practitioner, indeed, it is almost indispensable, for it presents a brief but sufficient summary of all the new facts and ideas in the domain of therapeutics which are likely to be of use to him in his daily round of professional duty. As regards the execution of the work it is enough to say that the contributors are recognized authorities in their several provinces.

One great and leading feature of this work is its thorough condensation, so much valuable material in such compact form. Space will not permit the full description of the work, which it merits, or such as our pleasure at its perusal would prompt. The art of the publisher is well displayed in the choice of paper, type, engravings and binding. It is replete with original and selected illustrations, skillfully reproduced, thus insuring accuracy in delineation, affording efficient aids to a right comprehension of the text and adding to the attractiveness of the volume. The publishers deserve our thanks for the production of a work which is a boon to the English speaking medical profession.

TREATISE ON THE DISEASES OF WOMEN. For the Use of Students and Practitioners. By ALEXANDER J. C. SKENE, M. D., LL. D., Professor of Gynecology in the Long Island College Hospital, Brooklyn, N. Y.; Formerly Professor of Gynecology in the New York Post-Graduate Medical School, etc. Third Edition, Revised and Enlarged, with 290 Engravings and Four Plates in Colors. New York: D. Appleton & Co. 1898. Price, Cloth $6.00.

In no department of medicine have more rapid and greater strides been made during the present decade than in gynecology. During this period many things new and useful have been added to the science and art while much, that is both old and new, deserves to be forgotten. This work brings together the fully matured and essential facts in the science and art of gynecology, so arranged as to meet the requirements of the student of medicine, and be a safe guide to the practitioner for reference. Every subject is clearly described, and histories of cases, typical and complicated, are given as illustrative of the disease or injury under consideration, with the author's method of treatment. In this edition, the discussion of injuries of the pelvic floor, the author has rearranged the varieties so that they can be more clearly comprehended. The surgical treatment has been simplified and more fully illustrated by drawings from the living subject and the cadaver. Vaginal and abdominal hysterectomy are fully considered and thoroughly up to date, together with complete descriptions and illustrations of the approved methods of performing these operations. The description of modern instruments and appliances and the indications for their use are very complete. The surgical treatment of uterine displacements is fully considered and its true value estimated. The use of the endoscope and cystoscope is so described as to bring these instruments more completely within the grasp of the general practitioner. The numerous illustrations are clear and comprehensive. This edition is very handsome and we commend it highly.

A Text-Book on Surgery—General, Operative and Mechanical. By John Wyeth, M. D. Third Edition. Revised and Enlarged. New York: D. Appleton & Co. 1898.

The great popularity of this book is well known. The original edition was published in 1886. It was revised and enlarged in 1890. Since that date the rapid advances made in every department of surgery has rendered a revision necessary. It will prove a useful guide to the student in the beginning of his surgical work, and also assist the general practitioner in the solution of the surgical problems which may from time to time be presented to him. In accordance with these objects the book is eminently a practical one. It meets the requirements of both student and practitioner, affording elementary instruction to the one, and serving as a book of reference in doubtful and complicated cases to the other. The introductory section is devoted to surgical pathology, sub-divided into six chapters. These chapters treat of inflammation and the process of repair in the various tissues of the body, and the difference in repair in a tissue affected with simple-non-infective and infective inflammation. Specific and non-specific urethritis, erysipelas, actmoycosis, glanders, tetanus, malignant aldema, hydrophobia, tuberculosis, syphilis, leprosy, diphtheria, and typhoid infection are also mentioned in this portion of the work. Chapters VII and VIII are devoted to surgical dressings, sterilization, asepsis, antisepsis, and anæsthesia. In chapters IX and X are given hæmorrhage, wounds, burns, skin grafting, frostbite, furuncle, carbuncle, ulcers, and gangrene. Bandaging is given in chapter XI, and chapter XII is devoted entirely to amputations. Chapters XIII, XIV, and XV deal with the lymphatic vessels and glands, veins, arteries, and ligature of the vessels. In chapters XVI and XVII are given the lesions of the bones and joints, and the various operative measures for their correction. The chapters from XVIII to XXIX inclusive are devoted to regional surgery, and in that portion of this section in which the abdomen is considered many important changes have been made and much new matter added. Chapter XXX takes up deformities and their correction, while the final chapter XXXI is devoted to the subject of tumors. The style of the author is clear and scholarly, and the publishers part of the volume is all that could be desired.

Orthopedic Surgery. By James E. Moore, M. D., Professor of Orthopedie and of Clinical Surgery in the College of Medicine of the University of Minnesota, etc. With One Hundred and Seventy three Illustrations. Philadelphia: W. B. Saunders, 1898. Price, $2.50 net.

This is a very valuable text book for students and a ready reference book for general practitioners. All that is not of practical value has been eliminated. Special stress is laid upon early diagnosis, and instead of giving in detail every method of treatment that has ever been employed, only such methods are given as in the writer's experience have yielded the best results.

Dr. Moore has gained a well earned reputation from clinical lectures and papers which he has from time to time published in the periodical press and transactions of the American Orthopedic Association. In the present volume the author has brought together in systematic form the results of his experience in a very important branch of the surgical art. The book contains 354 pages and is very clearly written. The points of differential diagnosis are very carefully presented, with the descriptions of symptoms and proper methods of treatment. The author states in the preface that the desirable middle ground between the surgeon who operates too frequently and the orthopedist who seldom operates, believing that in this branch of surgery, as in every thing else, best is not to be found in the extremes. We admire the book very much both from a mechanical and a literary standpoint.

KLEMPERER'S CLINICAL DIAGNOSIS. By DR. G. KLEMPERER, Professor at the University of Berlin. First American from the seventh and last German edition: authorized translation by NATHAN E. BRILL. A. M., M. D., Adjunct Attending Physician, Mt. Sinai Hospital, and SAMUEL M. BRICKNER, A. M., M. D., Assistant Gynæcologist, Mt. Sinai Hospital Dispensary.

Dr. Klemperer's work on Clinical Diagnosis has become so widely known during the past seven years that it should be considered a happy event that places it within the reach of English readers. The book is exceedingly comprehensive, though condensed. Its successive chapters deal with the inspection and examination of the patient, consideration of striking symptoms, diagnosis of the acute infectious diseases, diseases of the nervous system, digestive diseases appropriately subdivided and assigned each its special symptomatology, diseases of the upper air passages, of the respiratory apparatus, of the heart and circulation. Two chapters are devoted to urine analysis and to diseases of the kidneys. The four concluding chapters deal with disturbances of metabolism, diseases of the blood. Rœntgen rays as diagnostic aids, and animal and vegetable parasites, including bacteria of clinical importance. The translators have adhered to the original text strictly, not amending, subtracting or adding.

We feel certain that no book so complete, short of a text-book of medicine, has been offered the American medical public. It is scarcely too much to expect that the forthcoming edition will be exhausted as quickly as was its German analogue, of which seven editions in the original language were issued in as many years. The book is found on the desk of every German physician or medical student. The German school leads in clinical diagnosis and in this little work we have the most exquisite example of its methods.

ELEMENTS OF LATIN. For Students of Medicine and Pharmacy. By GEO. D. CROTHERS, A. M,, M. D.

In reviewing the above work we announced at the close of the review that the work was issued by Leo. Bros. & Co. when it should have been the F. A. Davis Co. In justice to the latter firm we gladly make this correction.

SEXUAL NEURASTHENIA, Its Hygiene, Causes, Symptoms and Treatment, with a chapter on Diet for the Nervous. By GEO. M. BEARD, A. M., M. D. Edited with notes and additions, by A. D. ROCKWELL. A. M., M. D. Fifth Edition. New York: E. B. Treat, & Company, 1898.

This is the fifth edition of this work. The fact that each successive edition of this work has been exhausted more quickly than its predecessor sufficiently indicates its popularity and its right to live. It is divided into the following nine chapters: Nature and Varieties of Neurasthenia; Evolution and Relation of the sexual sense; The Relation of Neurasthenia to other Diseases; Sexual Hygiene; Diagnosis and Prognosis; Illustrative cases; Treatment of Sexual Neurasthenia; The Diet of the Nervous and Sexual Erethism. The general character of this work, the wide range of information covered and the general lack of knowledge it imparts, on the part of a great majority of physicians will create a large demand for the work. It contains about 300 pages and appears in the same neat form characteristic of E. B. Treat, the publisher.

THE PHYSICAL CORRELATION OF RELIGIOUS EMOTION AND SEXUAL DESIRE. By JAMES WEIR, JR., M. D. Second Edition, Louisville, Ky., Courier-Journal Job Printing Co.

This book is written in an interesting style, and shows that the views and facts presented are the result of extensive study and research. The contents of this volume represent an immense amount of labor, since the author not only gives his investigations concerning the subject, but also embodies deductions made from writings of modern contributors to this branch of literature. The subject is considered under the following heads: The Origin of Religious Feeling, Phallic Worship, Psychical Correlation of Religious Emotion and Sexual Desire. The work is certainly an interesting one and cannot fail to be appreciated by the thinking public.

TRANSACTIONS of the Royal Academy of Medicine in Ireland. Vol. XV. Edited by JNO. B. STORY, M. B., F. R. C. S., General Secretary, Dublin, Fannine & Co., Std. 1897.

The present volume of Transactions is one in which the Royal Academy of Medicine has done itself proud. The papers are all notably excellent and highly interesting. The volume is one which is replete with matter of the highest interest to physicians and the manner in which it is presented reflects great credit upon the publication committee. It is fully up to the high standard which has been set in previous issues of the transactions.

LITERARY NOTES.

The Living Age needs but to be read to be appreciated. Elevating, entertaining and instructive, it embraces every department of literature, including some of the best fiction of the day and poetry, and contains something for every variety of taste.

The following partial contents of its February issues is suggestive of its wide scope and great value. It is indeed invaluable to one who has neither time nor opportunity for scanning all the magazines but who is desirous of keeping abreast of the literary current.

Most of its articles are of great present interest, as well as of permanent value, yet they can be obtained in no other way except by subscribing direct for the periodicals in which they originally appear, and these are many and various, comprising not only those of Great Britain but many of France, Germany, Spain and other continental sources. For instance—"The Degradation of Dreyfus," from the French of Adolph Brisson, in *Les Annales*; "A Session of The Reichstag" from the German of Richard Nordhausen, in *Ueber Land und Meer*; "The Coming of the Slav," by Geo. Washburn, D. D., in *Contemporary Review*; "Louis Carroll" from the *Spectator*; "The Higher Education of Women in Russia," by Princess Kropotkin; "A Walk thro' Deserted London," by Sir Algernon West; "A Simple Story," from the Polish of M'me. Marguerite Poradowzka; "A Lady's Life on a Ranch," by Moira O'Neill; "Pilgrims and Emigrants," from the French of Emile Bertaux; "A Woman Learned and Wise," by Alexander H. Japp; "Burns," by Charles Whibley—and many others, with fiction, including an instalment In each number of "With all Her Heart," a delightful serial, translated for The Living Age from the French of Rene Basin, and several short stories, and poetry.

The Living Age is published weekly at $6.00 a year by the LIVING AGE Co., Boston. Send 15 cents for a sample copy and special offer to new subscribers.

OUR DUTY TO CUBA.—Senator H. D. Money in the March Forum:

The United States has a duty to perform, to herself, to Cuba, and to Spain; and this duty must be approved by considerations of reason, of justice, and of honor. We have never striven for, nor even desired, the hegemony of the American States. On the contrary, our Government has, with rare exceptions, studiously avoided international complications and responsibilities, perhaps at times to the prejudice of our national prestige. But it often happens that the situation of a nation, while conferring certain privileges and rights, also imposes certain duties and obligations; and, however willing it might be to dissociate itself from the affairs of other countries and to ignore their claims, it cannot always in honor and safety do so.

Such a case confronts us to-day. The Cuban Problem presses for solution; and there is a general desire to solve it wisely. We must determine what action is required of us that we may be true both to ourselves and to the Cubans, and, as far as is consistent, considerate of the rights of Spain. During the last two years Congress, for the first time taking the initiative, has been discussing the recognition of belligerency; a power heretofore exercised by the Executive in all forms of government. Legislative action in such matters has, until recently, been confined to an expression of opinion intended to excite a tardy Executive to action. The joint resolution recently passed by the Senate would be an authoritative recognition of belligerency of the highest character, if it should meet with Executive approval; and as a consequence, important benefits would inure to the Insurgents, The Cuban cruisers would have the same rights as those of Spain; and the Cuban flag would be as much respected. Her captured soldiers would be entitled to treatment as prisoners of war; and Cuba would enjoy the same rights as Spain to purchase all munitions of war, and what is more important—to borrow money. Perhaps also her credit would become as good as that of Spain.

An entirely new and remarkable phase of Walter A. Wyckoff's experiences as a day-laborer is begun in the March Scribner's with "The Workers of the West." A certain idyllic quality was never far distant from even his most sordid experiences in the rural regions, which made the first division of this narrative the most talked-of serial feature of the year. But in this new experiment he plunges into the "heart of a congested labor market."—Chicago, before the World's Fair. Here he learned what it was to look for work and fail to find it under the spur of cold and hunger. His narrative differs from all previous accounts of the slums and slumming, because he actually lived the life for months on the same conditions as the poorest. He raised himself from the vagabond class by the only door that is open to them—the door of labor.

He entered into their organizations—labor unions, socialist meetings, and anarchist societies. He does not believe we are on the eve of a "Social Revolution." and this narrative will be the best answer to alarmists. It is not an economic discussion, however, but an absorbing—often dramatic and pathetic—account of actual people and experiences. These are facts of life presented with amazing literary skill.

The March number of the American Monthly Review of Reviews is another achievement in monthly journalism. The topics treated in this magazine are such as occupy much space in the daily press, but the Review is able to treat them more deliberately and in a more carefully adjusted proportion. No other illustrated monthly appearing on the first day of March will have so much as a reference to the DeLome letter, the Maine disaster, or the Zola trial in Paris; but these great themes of the hour are fully discussed in the Review's pages. The Review's readers expect to have them discussed there, so accustomed have they become to the essential qualities of timelines and comprehensiveness in the "busy man's magazine."

The Treatment of Dangerous Hæmorrhage.

In the editorial columns of the British Medical Journal. Feb. 26, 1898, appears an item of interest regarding this dangerous condition :

For many years it was assumed that the blood of a healthy living person should be injected into the veins of a patient sinking from hemorrhage. As this method of transfusion was found to be unsatisfactory, blood prepared after different fashions was employed. Details would now be almost archæological, for Wooldridge showed that when a patient recovered after transfusion of blood by any method it meant that the transfusion had failed, the blood having escaped into the cellular tissue outside the circulation ; whilst transfusion mechanically successful, was in itself deadly. A great gain to humanity was secured by the labors of British and German physiologists, not twenty years ago, who showed that a subject who had bled to death still had in his body enough blood to have supported life, if only it could bave circulated. This was prevented by the great fall in blood pressure. What is necessary, then to prevent fatal syncope when a patient has bled gravely, is to inject into the veins, not blood but fluid sufficient to raise the blood pressure to its former height. This theory has proved successful in practice. Saline water, "artificial serum," answers admirably. A teaspooonful of salt, dissolved in a pint of hot water, constitutes this not very mysterious solution. Great simplifications in transfusion have been effected, and Dr. Horrock's simple apparatus is now widely used. As for operators, no doubt their adoption of Mr. Lawson Tait's practice of flushing the peritoneum with hot water signifies that they have performed transfusion many a time without knowing it. That flushing floats out clots, etc., and dilutes germs till they become harmless most authorities were aware from the first, but it was not until about 1890 that Pozzi and other operators distinctly noted that not only was the hot water a handy hæmostatic, as Mr. Keetley showed twenty years since, but its employment was, in part, a true transfusion. The hot water left in the peritoneal cavity is soon absorbed, and some operators purposely leave a pint or two there, with the express aim of allowing of its absorption. The bost known advance in the direction of simplification is subcuneous injection of saline water, most conveniently in the subscapular or submammary region. Many experienced operators employ it in preference to intravenous injections. Still the inexperienced may fear to force a pint or so of fluid into cellular tissue, nor can they always manage to do it ; the process is also painful and the water must be carefully sterilised before use. Rectal injection affords a simple substitute. Pouchet, of Paris, believes in the enema of artificial serum, even after operations. He uses a solution of table salt in water (8 in 1,000) at 100 degrees, and injects six to twelve ounces every three hours, so that about five pints are taken up in twenty-four hours. These enemata (which are used also in this country) lead, when successful, to restoration of the pulse, and the kidneys are again enabled to eliminate toxins. Unfortunately, the hot water enema acts slowly and in bad cases the rectum often fails to retain sufficient water, while some subjects cannot retain the enema when they become conscious. Nevertheless it is better than doing nothing.

Women as Pharmacists.

The New England Medical Monthly for March contains an editorial on this subject :

It seems to us that since the field of medicine has been invaded by the gentler sex, various occupations of a kindred character, such as nursing, dispensing, and the like, have been more or less successfully pursued by women in this and other countries. As regards the practice of pharmacy, it is apparent that this is very well adapted to the tastes and capabilities of women and might be carried on by them with decided success. This idea, if we mistake not, originated in Russia, where there are now about one hundred who have chosen pharmacy as a profession. The laws regulating its practice in that country are however very strict —three years preliminary training and an examination being required to qualify for the position of assistant pharmacist, while a professor of this branch must pass three more years and a final examination before being permitted to carry on a business of his own.

In this country, however, it has not thus far attained the popularity which it perhaps deserves, though we find here a few who are proprietors of drug stores, and a smaller number who are engaged in compounding and dispensing. An occupation of this sort which offers fully as many attractive features as most occupations must necessarily appeal to a large class of wage earners, and hence seems destined to grow in popularity as competition increases and other occupations become less remunerative and more difficult to obtain.

A Study of the Etiology and Histology of Pneumonia in Children and of Pneumonia in General.

Dr. Durck (International Medical Magazine) aays:

By the study of pathologic and bacteriologic investigation of a large number of lungs from children who died of pneumonia, both in cases of primary and secondary origin, the following bacteria were found: diplococcus pneumonia, streptococcus, staphylococcus bacteria pneumonia, bacteria coli, etc. The diplococcus pneumonia was found to be most numerous. Of the remaining mixed germs, the germ of the primary disease was not necessarily the most prevalent, with the exception of diphtheria, in which the bacillus diphtheriæ, was always found in large numbers. The other forms of bacteria seem to have little to do with the diseased condition, and especially marked was the diplococcus lanceolatus which was rarely found in the fibrin, and usually found in large numbers outside the diseased area. In children who had had pneumonia in consequence of some other disease the same bacteria were found as in the primary pneumonia. The prevalence of the diplococcus lanceolatus was observed in large numbers as before.

There being very little chance to study fresh lungs of human beings this study was made upon domestic animals, immediately after they were killed. In these lungs all sorts of germs were found, and also some of a pathologic character, as the bacillus pneumonia, the diplococcus pneumonia, staphylococcus. and streptococcus; upon this can be based the idea that germs can be found in healthy lungs, and under normal conditions these germs are harmless; but at the moment of injury they become active. With this in view, several experiments upon animals were tried. Through a tracheal tube germs of different sorts were blown into the lungs, without producing pneumonia; but if some dust was introduced with or without germs (as they are present in the lungs under normal condition) so that this dust would irritate the delicate membrane of the lung, pneumonia always followed. The effect of cold was studied, by first keeping an animal in a warm room, about 37 deg's. C., and then immersing it in an ice cold bath and allowing it to stay there for from two to seven minutes; pneumonia usually followed, and this pneumonia presented all the histologic changes that are seen in lobar pneumonia in human beings. The experiments prove that there is usually some violence to the lung-tissue first, which in the above experiments was due to the dust or to the cold, and then the disease germs acting upon this already inflamed tissue cause the lungs to lose their normal resisting power, and become a field for the multiplication of the germs already there.

The Expectoration Nuisance.

Public Health Authorities in this country have made promiscuous expectoration in public conveyances and resorts a penal offence, and according to the latest advices, opinion in Germany is moving in the same direction. How many diseases are spread by this filthy habit it is impossible to estimate. One has only to travel in the ordinary smoking carriage on any of our railway lines to see how rife the habit has become in this country; and although we, as a nation, have a habit of shutting our eyes to anything that savours of the unpleasant, it is surely not too much to expect that our Public Health Authorities will sooner or later awake to realize the seriousness of the evil. The medical profession have it in their power to do much to arouse public opinion in the matter, and it is to Medical Officers of Health that we must look for "first aid." If the dangers which underlie in this unsavoury habit are only ventilated in the proper quarters, it will not be long before the powers of the Legislature are enlisted in order to stamp it out.

An Unusual Case of Jealousy.

Dr. O'Neill reports in the Lancet for Jan. 22d, 1898, a case with the following peculiar symptoms. He says:

Some years ago I was requested to visit a lady who it was represented to me was very ill, and who consequently required immediate attention. On entering the house I was shown into the so-called sick-room, in which there were three persons, all of whom seemed to be in good health. There were present an old lady (the owner of the house) and her daughter, who had arrived a few days previously from a neighboring county to spend two or three weeks with her mother, and the daughter's husband, whose visit was only to be for a day or two. The man was about thirty-five years of age, small in stature, swarthy in complexion and plain looking. The wife was a striking contrast to her husband; and she was rather tall, remarkably fair and handsome, and was a few years younger than her good man. After taking a seat I asked which of them was the patient, but no answer having been given to my inquiry I asked again. Then the younger lady, with some hesitation, said: 'I am the patient and my complaint is jealousy. I am jealous of my husband, and if you do not give me something to relieve me I shall go out of my mind.' This accusation against the little man seemed to me to be most ridiculous; indeed, if the accuser had been the accused it would have been more in the nature of things. I assured the lady I was extremely sorry for her, the more so that I was quite incompetent to treat such a case. However, I advised that a wise mutual friend should be consulted, who would make things pleasant between husband and wife, for that in all probability there were no grounds for her suspicions. The husband protested his innocence, and declared there was no cause whatever for her accusations. The wife persisted in reiterating them, and so the wrangle went on till suddenly she fell from her chair on the floor in a fit, the spasmodic movements of which were so strange and varied that it would be almost impossible to describe them. At one moment the patient was extended at full length with her body arched forward in a state of opisthotonos. The next minute she was in a sitting position, with the legs drawn up, making, while her hands clutched her throat a guttural noise. Then she would throw herself on her back and thrust her arms and legs about to the no small danger of those around her. Then becoming comparatively quiet and supine she would quiver all over while her eyelids trembled with great rapidity. This state perhaps would be followed by general convulsive movements, in which she would put herself into the most grotesque postures and make the most unlovely grimaces. At last the fit ended, and exhausted and in tears she was put to bed. The patient was a lithe, muscular woman, and to restrain her movements during the attack with the assistance at hand was a matter of impossibility, so all that could be done was to prevent her injuring herself, and to sprinkle her freely with cold water. The after-treatment was more geographical than medical. The husband ceased doing business in a certain town where the object of his wife's suspicions lived. He was enabled to do so by the kindness of a friend, who exchanged part of his district with him."

Dr. O'Neill says that this was not a case of epilepsy, for the muscular spasms of the patient were not exactly similar to those of that disease. Besides, there was no foaming at the mouth or biting of the tongue, and consciousness was not at any time fully at abeyance, as is the case in epilepsy. The attack was a well developed hysterical fit, with a good deal of cataleptic rigidity of the muscles. The doctor says the fit was not the disease, but it was the symptom or manifestation of a mind diseased or deranged, the state of the mind being the result of the woman's brooding over her real or imaginary wrongs.

Treatment of Tertiary Syphilis of the Nose and Throat.

St. Clair Thomson (Laryngoscope) enters a strong plea for inunction of mercury in all syphilitic affections of the upper air passages, and in all stages, unless there are other contra-indications. The insidiousness, and at the same time the rapidity, with which a tertiary process may spread in the nose or throat, sometimes causing little inconvenience to the patient, always render it a grave lesion. The disastrous after-effects are only too well known. Syphilitic stenoses of the larynx and trachea are amongst the most resistant of strictures, and when the nose is disfigured it leaves a condition which is at present irremediable, and often causes the greatest social inconvenience and mental distress to the patient. In connection with the collapse of the bridge which results in the saddle back, nose, St. Clair Thomson contends that it is not caused by the loss of the septum. He points out that the nose is not kept up by the septum; if it were, collapse would always follow when this support is removed. Large portions of the septum are often removed by operative procedures without resulting collapse. The bridge, like all bridges, is maintained by the arches on either side. When falling-in of the nose does occur it is due either to disease affecting these lateral arches, or else to the retraction of cicatricial tissue; and how much syphilitic scars retract is evident from what is visible in tertiary affections of the pharynx. This view of the case is confirmed by Thomson's observations, for in all cases which he has been able to submit to inunction of mercury before the collapse of the bridge took place it has never ensued, even when the case did not come under treatment in time to prevent the loss of a large part of the septum.

The Induction of Premature Labor by Means of Glycerin.

The Boston Medical and Surgical Journal ,March 3rd, 1898, publishes an abstract of a paper by Dr. H. Saft, of Breslan :

The procedures commonly employed for this purpose, such as irrigations of hot water, introduction of bougies, etc., usually require some days or even a week to produce the effect, and glycerin is the most efficient substance at present known. Glycerin acts by withdrawing water from the animal tissues and in this way irritating the uterine ganglia and nerves so that muscular contractions are produced. Its application is not free from danger, as it has been found to cause hemoglobinuria, destruction of the red blood-corpuscles, shivering fits and spasmodic dyspnea. For the purpose of obviating these dangers, Theilhaber used rods coated with a mixture of glycerin, gelatin and tricresol. Dr. R. A. Simpson injected three ounces of glycerin into the undilated os uteri of a primipara suffering from eclampsia and subsequently packed the cervix and vagina with plugs soaked with glycerin; but labor did not ensue, and another injection of glycerin had to be given.

The dilemma is that small quantities of glycerin are useless, and large quantities are dangerous. Dr. Saft therefore endeavored to devise a method by which large quantity of glycerin might be introduced into the uterus without more than a very small proportion of it being absorbed. The method was suggested by the procedure of passing a catheter covered with an empty india-rubber bag between the uterus and the membranes. The bag was fastened to the catheter by thread tied round its mouth, and when it was in position it was filled through the catheter with from 400 to 500 c. c. (from 14 oz. to 18 oz.) of a solution of lysol. It occurred to Dr. Saft that if glycerin were substituted for the lysol solution and animal membrane for the india-rubber bag, then the glycerin would be able to exert its power of withdrawing water from the tissues without much of it being absorbed. For the animal membrane he used the swimming bladders of fish which as prepared for the market possess most of the requisite qualities; and having selected such as were capable of holding water he succeeded to his satisfaction in inducing labor without any ill-effects to the patients. Diffusion takes place through the swimming bladder, the glycerin withdrawing water from the uterus and fetal membranes. The quantity of glycerin which diffuses outwards through the membrane is too small to be productive of injury.

The swimming bladders selected for this purpose must hold water; most of those which are sold will not do so, and all such must be rejected. They are then freed from fat by treatment with either and are afterwards sterilized with an alcoholic solution of corrosive sublimate, the process resembling the preparation of catgut by Schimmelbusch's method. When the bladder is drawn over the catheter, about an inch is left between the bottom of it and the tip of the catheter; the two are then tied together with silk. When the instrument is inserted between the uterus and the fetal membranes about 100 c. c. (3½ oz.) of glycerin are injuected through the catheter, the lower end of which is then closed by means of a piece of india-rubber tube. The bladder must not be pushed high up into the uterus, but must lie directly oves the internal os. Finally, the vagina is packed with iodoform gauze, which prevents the catheter from slipping out.

No ill-effects to either mother or child were observed. Of seven patients treated in this way four had injections of from 40 to 60 c. c. (from 1½ oz. to 2 oz.) of glycerin and the average duration of labor was about 108 hours: the other three had injections of 100 c. c. (3½ oz.) of glycerin and the average duration of labor was about 52 hours.

Strong solution of sodium sulphate is another of the fluids which tend to absorb water by osmosis, and he proposes to make trial of it in the way above described in order to ascertain if it has the same effect on the uterus as glycerin has.

There would seem to be a probability that a mixture of sodium-sulphate solution and glycerin might be employed with advantage, thus combining two drugs which possess a strong affinity for water, as is done in the enema of glycerin and sodium-sulphate solution which is so much used at present for the purpose of moving the bowels in cases of threatened septic peritonitis.

Complete Spontaneous Inversion of the Uterus in Labor.

Solberg records a bad case of this accident in a woman, aged 23. (British Medical Journal.) She had been subject to anæmia, dyspepsia, dysmenorrhœa, and leucorrhœa, and had been twice pregnant and aborted on both occasions. The labor proceeded satisfactorily till a quarter of an hour after the delivery of the child; then symptoms of internal hæmorrhage set in. Half an hour later, when the patient had become very pale and restless, a strong pain occurred, and the placenta was expelled suddenly. In separating it—for it partly adhered to something—fluid blood and clot escaped in abundance from the vagina. Two hours and three-quarters later the physician arrived; the patient was then in a sinking condition. Complete inversion of the uterus was discovered; the fundus was as large as a fœtal head and covered with adherent clot. Part of the membranes were packed between the body of the uterus and the vaginal walls, having been torn off when the placenta was removed. The inversion was replaced by steady pressure on the uterus; the resistance suddenly ceased, the organ immediately slipping upwards into its normal position. The patient was so exhausted that it was thought dangerous to give any anæsthetic. There was no more hæmorrhage, and the uterus contracted well, but the patient died four hours later, though stimulants were given freely.

Picric Acid in Eczema.

Aubert, according to the British Medical Journal, says that speaking generally picric acid is indicated in those forms of eczema in which the inflammation is acute and superficial, and where the lesions are mostly epidemic. The keratoplastic action of the remedy cannot display itself in the chronic forms of eczema accompanied by induration of the skin and particularly by epidermic thickening; picric acid is incapable of modifying these chronic lichenoid eczema. On the other hand the keratogenic properties of the agent find an excellent field of action in acute eczemas with swelling of the integument, superficial ulceration, and weeping. Under its influence the inflammation rapidly subsides, and the acid forms on contact with the ulcerated and oozing surfaces a protective layer composed of coagulated proteid substances and of epithelial *debris* under which healing takes place rapidly. Picric acid has the further advantage that it immediately stops itching; this effect is produced in chronic as well as acute forms of the disease. In acute eczema a cure is effected in from ten to fifteen days. The method of use is as follows: A solution of 12 g of picric acid in one litre of tepid boiled water is painted over and somewhat beyond the affected surfaces; the parts are then wrapped in lint wrung out of the same solution, and over this is placed a covering of cotton wool It is important that oiled silk should not be used, otherwise maceration of the surface is pretty certain to occur. The dressing should be renewed every two or three days. Brousse recommends that before the picric acid is applied the cutaneous surface should be washed with a solution of boric acid.

A Simple Method of Estimating the Toxicity of the Urine.

Pelligrini has made a number of experiments which go to show that the amount of potassium indoxyl sulphate in the urine is a reliable index of the degree of its toxicity. (British Med. Journal.) He recommends the employment of Primaversa's test for this substance, which is as follows: Pour from 4 to 5 c. cm. of urine into a test tube, and add slowly one-third the volume of pure concentrated sulphuric acid. Cool the mixture by dipping the end of the tube into cold water. Add 1.5 c. cm. of pure chloroform. Mix thoroughly, and then allow the chloroform to settle to the bottom of the tube. If potassium indoxyl sulphate is present in normal quantity, the chloroform has a light-blue tint. When it is present in excessive amount the chloroform has a deeper blue colour proportionate to the excess. Information regarding the degree of toxicity of the urine is of special value in cases of insanity, in the causation of many of which auto-intoxication is now known to be a very important factor. Pelligrini believes that the increased toxicity of the urine in such cases is chiefly due to abnormal fermentation within the gastro-intestinal tract; it is important, therefore, to correct any disorder of digestion in these patients.

Senn declares that it is best to postpone passive motion in the child from eight to twenty-one days after fractures, and in the adult for three or four weeks. By securing rest for the fractured bone we diminish as far as possible the amount of exuberant callus.

Epidemics and Quarantine from the Ethical and Humane Points of View.

Dr. G. B. Eager, of Montgomery, Ala., read a paper with this title at the Quarantine Convention of the South Atlantic and Gulf States.

He said: This question of quarantine has its distinctly legal and commercial aspect, which none of us would minimize, and which business men are naturally inclined to think the all important ones. It has also its international, National and State aspects, and then its sociologic, scientific and sanitary aspects.

Quarantine in our own country is conceded to be very complex, ineffectual and defective. We have had ample illustrations of this fact within late years. Under its operations and abuses we have been called upon to witness the most humiliating atavistic tendencies of human nature and society. Poor human nature has shown in many cases a most shocking reversion to type. In one way and another our people have been guilty of the most barbarous cruelties. These cruelties have been shown especially in the enforcement of defective, various aad unscientific, local systems of quarantine that exist in our Gulf States.

With human nature what it is, and society as it is, crude and undeveloped in many of its elements, with much of our civilization proving itself, under stress of fear and selfishness, but a veneering, certain excesses of tyrannies will crop out. There are evils that are incurable at the present stage of our development. "What can not be cured, of course must be endured." But are there not many of the inconsistencies and inhumanities of the existing quarantine system that might be rnmedied? If so, all principles of justice, right and humanity call on us to address ourselves to this problem with all earnestness and unselfishness.

Admitting all that can justly be said on municipal and State rights and on the legal aspects of quarantine, one fact stands out, the recent conduct of quarantine affairs by local authorities was a scandal and a disgrace to civilization! The dread name of the disease alone seemed sufficient to terrorize the majority of our people and lead to the most brutal encroachment on inherent human rights, to the violation of nearly every law of the decalogue, and to unreasonable and inhuman interferences with travel, transportation and trade. As a result of this contagious demoralization, not only was business absolutely paralyzed, but the States of Alabama, Mississippi, Louisiana and Texas, as we all know, were almost wholly given over to terror and anarchy, masquerading under the name of "local" quarantine.

Let it be granted that the function of quarantine has to do with health matters, that it is the protection of the public from an invading disease, that this is primarily the duty of the State; my contention is that all considerations of humanity require that its enforcement should be as free from complications, delays and harsh exactions as is compatible with efficiency, and that the expense to commerce should be reduced to a minimum. That a pest ship for instance, should be obliged to go out of its course 100 miles or more to be disinfected, is a sufficient evil in itself; but that the sick, often without medical care, and the well, in constant danger of infection, should be penned up in the same vessel, perhaps for several days, is barbarous.

A system of quarantine that is just and humane, at the same time that it is efficient, should not only remove the sick to a hospital, but should provide means for comfortably caring for the well who have been exposed to infection, and should possess the necessary authority,.force and apparatus for the speedy disinfection of vessels, baggage, merchandise and clothing.

In conclusion, if the abuses and cruelties and excesses complained of, and all ideas, can be checked, or in any degree cured, by the establishment of an improved and well adjusted National quarantine system, or by an enlargement of the scope, force and equipment of the Marine Hospital Service, then all principles of justice and humanity require that we should subordinate our local preferences, our too narrow or sentimental ideas of State rights, and our personal ambitions for position or greed for revenue, to the greater interests of the greater number.

Sleep and Sleeplessness.

Dr. Robt. A. Fleming (London Lancet) recently lectured on sleep to the Edinburgh Health Society. He said that an adult should have seven to eight hours sleep, but the amount depended on the kind of work done during the waking hours. Manual labor meant the necessity for more sleep, and a feeble intellect needed much more sleep than a highly educated one. A child with its developing brain and mind needed much more sleep than an adult. A newly born infant should sleep twenty hours, at least, out of the twenty-four; a child of one to two years, sixteen hours; a child of four, twelve hours; and of ten, ten hours. At the age when the child becomes a man or a woman rather more sleep was needed than for an adult. Old people required much less sleep unless the mind failed, and then they needed a child's allowance. The bed should be fairly hard; a hair mattress was probably best; no feather bed should even be allowed to exist for a day, unless in an antiquarian museum, and should never be slept on; it is far too airless and hot.

The temperature of bedroom should be 55 to 60 degrees, The hour for retiring to rest was a somewhat difficult and delicate matter to settle. The beauty sleep supposed to be obtainable before midnight was a fiction. So long as we got our eight hours of sleep it matters not at what hour we sought our couch, and the misery of rising much before daybreak on a wintry morning was hardly compensated for by the joys of bed much before twelve. In summer early rising was in every sense a pleasure, in winter it was a penance. Possibly the very commonest phenomenon associated with sleeplessness was cold feet. This was readily understood. Cold feet meant blood in excess in brain and internal organs, and, therefore no sleep was possible till the feet were warm. A hot bottle was in no sense of the word a luxury—in such a case it was a necessity, and one which should always be considered. For the full-blooded, a hot bath or hot foot bath before bed might procure sleep; for the too bloodless, a stimulant; and for the sleepless brain worker, some manual labor in the garden, or plenty of exercise, walking, cycling, etc., so as to tire the muscles, would greatly aid sleep. In those who suffer from insomnia tea and coffee should never be taken at night, as they stimulated the brain; and the utmost pains should be taken to avoid using the brain for the consideracion of difficult problems just before going to bed.

Apyretic Typhoid Fever.

It is an interesting fact says the American Association Journal that in clinical medicine every infectious disease which attacks the human beings in the vast majority of cases results in producing a more or less constant rise in bodily temperature. One would suppose that the poisons of one infection might irritate the heat centers in such a way as to cause an increased generation of heat, while other poisons would depress them to such an extent, or would so seriously interfere with oxidation processes in the body, that instead of the temperature rising above normal it would fall below it. It is true that in a certain number of cases where the infection is particularly malignant, and where the individual seems peculiarly susceptible, fall of temperature does follow the infection, the patient immediately passing into a condition of profound toxemia with symptoms resembling collapse, but these instances are so rare as to be practically curiosities in medical literature. It is interesting to note, therefore, that from time to time, as our observation of diseses becomes more accurate and our methods of diagnosis more complete, physicians are recording instances in which grave infectious diseases have been attended, if not by a fall in temperature, at least by no pyrexia. Originally, fever was perhaps the most important diagnostic point in connection with the case, but at the present time we regard it merely as a symptom of some prominence, possessing certain indications, and rely upon other physical signs more objective in character before we make a positive diagnosis.

Many years ago a very large number of cases of true typhoid fever were not recognized as such and were classified under the head of gastric fever, or simple continued fever. These cases are to-day properly recognized and add very largely to the number of cases of typhoid fever which are reported. Some years ago Fisk of Denver, reported a series of cases of typhoid fever, in which the temperature ran a typical but nevertheless apyrexial course, and similar instances have been seen in the East, recorded by clinicians, though none of them so far as we are aware have reported them as thoroughly as has Dr. Fisk. In this connection it is interesting to note a recent paper by Weill and Peary, published in *La Province Medicale* for November, 1897. In this case the temperature was normal or subnormal, practically throughout the entire course of the disease, but the pathologic process was accompanied by the characteristic symptoms of typhoid fever so undoubtedly that no question as to the diagnosis could be admitted. The symptoms began with the usual vague manifestations of general wretchedness, with great fatigue upon attempting any exertion. There was loss of appetite, frontal headache, restless sleep, vertigo, nausea, but there was no epistaxis. The tongue was characteristic, red on the edges and rough in the center. Constipation was present. There were no rose spots early in the attack. The abdominal walls were soft and pliable. The lungs were normal, there was a slight murmur at the base of the heart. The pulse was quick and small and easily accelerated by excitement. Vomiting was sometimes present, and a restless sleep finally became complete insomnia. Several days later in the case abundant edistaxis came on in the night.

There was diarrhea of a non-fetid character, which was persistent and vomiting became a persistent symptom.

Weill and Peary go over the case very carefully, present its temperature chart, exclude anemia and other causes of low fever and conclude that this was another instance of apyretic typhoid.

A New Auscultatory Sign of Cardiac Failure.

Dr. Alexander Morison in "Treatment" describes the new sign of cardiac failure.

In cardiac failure the action of the heart may be abnormally quickened or retarded, or it may have a certain rhythmical irregularity. Such conditions may be transitory and largely neurotic, or more or less permanent, and significant of more profound changes in the mechanism regulating the action of the organ. With their persistence they gather importance as elements in prognosis. Thus a pronounced tachycardia may rapidly give place to normal action, or by persistence wear out the endurance of the heart. The same holds good of the slow pulse, while the permanent variety of this species usually ends in syncope and death. The heart with coupled beats may be neurotic, dependent on posture, or due to the excessive action of digitalis. When due to that drug the abandonment of the latter is a paramount necessity. The tachycardiac heart may have a certain irregularity, or it may so clearly resemble the action of the organ in the fœtus in its regularity and unvarying *timbre*, as to earn the designation of embryocardia. To these varieties of abnormal rhythm M. Huchard now adds another, in which the two sounds of the heart are clearly approximated, and the diastolic pause relatively increased in duration. In bradycardia we have, of course, a relative prolongation of the diastolic pause; but in the variety now under consideration, the heart may beat seventy to eighty times a minute. To this sign he gives the name of *bradydiastole*. It may be met with in some cases of coma, cerebral hæmorrhage, uræmia, and aortic insufficiency, and, so occurring, it need not necessarily be of grave significance. But in exhausted conditions following fever, in the latter stages myocarditic states with asystole, and in cases under the influence of digitalis, it may have the gravest import. M. Huchard has observed it soon before and during the last agony; and under these circumstances it may have a deceptive force, or *brusquerie*, which may convey the impression that the heart is not so near complete failure as it actually is. In many cases digitalis, which on previous occasions has acted admirably, fails to exert its beneficial influence; the diuresis significant of its favourable action fails to occur; œdema, which was wont to disappear, remains. Under these circumstances the important question arises whether to increase or abandon the drug. In many cases we observe that an increased dose effects what a smaller dose fails to do. But, in the presence of this bradydiastole, we are led by M. Huchard to believe that the abandonment of the drug is an imperative necessity; and should general experience endorse this opinion, a most valuable clinical guide will have been discovered. According to M. Huchard, the bradydiastolic heart is indicative of actual or imminent dilatation of the ventricular cavity—a dilatation which digitalis aggravates instead of remedying. To combat this form of dilatation under these circumstances M. Huchard advises bleeding, the use of strychnine and spartein, and the hypodermic injection of camphor.

Soil Disturbance and Malarial Fever.

Dr. R. H. Moore (N. Y. Med. Journal) says that disturbances of the soil has come to be regarded as a frequent cause of malarial fever. It is simply meant that malarial fevers have been known to break out in certain places coincidently with extensive disturbances of the soil in connection with canals or railroads, no objection can be offered, for this is a fact beyond dispute; but it is equally well known, he says, that these works interfere seriously with the flow of the subsoil water, causing it to rise and produce a water-logged condition of the soil, or even a marsh, and these marshy conditions almost invariably produce malarial fever; it is, therefore, evident that it is to these conditions the malarial troubles are due, and to the mere disturbance of the soil.

Concerning the views of the different writers on this subject, the author states that the well-known authorities, Kelsch and Kiener, are somewhat more explicit than their English confreres, they freely acknowledge that soil disturbances produces malarial fever by interfering with subsoil drainage and the consequent formation of artificial marches, and they also appear to favor the idea that the disturbance of the soil releases a specific poison, but even they do not sufficiently distinguish between these two very distinct phenomena, and while bringing forward plenty of evidence in support of the former very obvious method of causation, they leave latter pretty well to take care of itself.

The following quotations, says Dr. Moore, from their "Traile des maladies des pays chauds" show this plainly enough:

Regarding railway construction, they say: "Fevers appear either when these works are in progress, on account of the disturbance of the soil, or when they are completed, from the stagnant water which fills the hollows accidentally dug out for the formation of the embankments, and forms a sort of artificial marsh."

Again, "If marshes possess all the necessary factors for the production of malarial affections, these conditions may also be created by the disturbance of a previously healthy soil, so that every place where the soil is of recent formation may on occasion become a focus of malaria."

No further distinction is drawn between the two methods of causation, continues Dr. Moore, and strange as it may seem, it is only too apparent that it never occurred to the authors to draw any distinction at all, and the fact that they have done so in the first quotation is merely fortuitous.

The following are two of the samples given by them of malarial fever caused by earthworks:

"Dr. Botrel, in his report upon the disastrous endemic of malarial fever in the Department of L'Ille-et-Vilaine, expresses his regret that the hand of man should assist in aggravating it, and in support of this view points to several ponds, extending along the railroad, the result, in a great measure to the work of construction and embanking. These artificial marshes dry up in the heat of summer and give rise to fevers, to which the personnel of the railway fall as first victims."

"In 1881, in the midst of the inhabitants of Grand Bruneval (Commune of Wallins, Oise) where malarial fever had never been known within the memory of man an epidemic of intermittent fever which spared no one, and which was caused by a marsh, the result of works undertaken by the Northern Railway Company, prevailed."

These cases, and all the others given by the authors, with perhaps one or two exceptions, says Dr. Moore, simply prove that in France, whether natural or artificial, cause malarial fever; but to bring them forward to prove that soil disturbances causes malarial troubles is a simple misuse of terms.

Dr. Moore states that in Algiers frequent outbreaks of malarial fever in connection with soil disturbance have been reported, chiefly when agricultural colonies were being founded. M. Armand, he says, in his very able work, "L'Algerie Medicale," writes as follows:

"Why, when the soil is disturbed at the founding of a village, say in the middle of a plain, do these fevers usually become more prevalent? And, why, two or three years after the village is constructed, does the state of health improve greatly in the same place?

"This need not surprise anyone who knows what happens in such a case; in spring, most frequently, a party marches out and camps at some point in the plain of Chelif, of Sig, of Seybouse, etc., to found an agricultural colony.

"In the midst of a vast stretch of treeless land these men must toil laboriously under a burning sun, against which a tent offers no protection. They are exposed to the full force of the sun all day, and find the opposite extreme in the cold and damp air at night; their food and drink are inferior to what they are accustomed to in their quarters.

"In fine, defective food, less refreshing sleep, exposure, more continued and more direct to the vicissitudes of the climate. Once begun, these works can not be interrupted, and, while the troops employed on other duties return to the barracks in June or July, the rising colony remains exposed during the endemio-epidemic season.

"Considering that the fact of being in camp all the summer has deteriorating effect upon the health of the men, even when no work is done, how much more will the effect be felt, when all the fatigue attending the establishment of a colony has to be encountered!

"The work of installation and construction does not involve as much disturbance of the soil as the subsequent tillage of the land, yet it is during the first summer that the state of the men's health is least satisfactory."

There is, continues Dr. Moore, a close resemblance between the conditions described here and the conditions affecting the troops in the early days of Hong Kong, and the parallel may easily be extended to the men in encampment.

In the agricultural colonies in Algiers, as in Hong Kong, the greatest amount of fever did not correspond with the greatest amount of soil disturbance, a point absolutely indispensable if the two things are to stand in the relation of cause and effect, while in the three cases the men were living under conditions of great exposure and badly housed.

It appears, then, that there are three distinct categories in which all the cases where soil disturbance has been accused of causing malarial fever may be replaced:

1. Where the disturbance of the soil has interfered with the subsoil drainage and caused a marsh or an allied condition

2. Where outbreaks of fever have been coincident with works executed in the soil, but not due to the simple disturbance of the soil.

3. Where malarial fever has been caused by a specific poison. released and brought into evidence by the breaking up of the soil.

Of cases that fall within the first category the are plenty, but, Dr. Moore says, it is a misnomer to speak of them as caused by soil disturbance.

Of the second class there are also plenty; they belong to the type of a gentleman previously mentioned, who contracted the fever by digging in his garden. These cases are valueless.

That malarial fever is caused in the manner specified in the third category there is not sufficient evidence to show.

Large Eaters.

Dr. Dio Lewis, in the "Journal of Hygiene" says:

"Large eaters are generally deficient in activity and endurance. I used to know one who tried hard to be a Christian, but failed because of too much dinner. That man was a curiosity. He worked in a small wood turning shop, and ate five times a day. When he consulted me about his 'poor stomach' I told him flatly that he was a pig. He replied, 'You are mistaken, I am faint half the time, and have to eat extra meals to keep up my strength.' I went at him with fact and physiology. At length he was convinced, and promised me that he would follow my prescription, which was this: Take but two meals a day. . . . In fifteen days his faintness had disappeared and he rapidly recovered. To-day he is a healthy, active man and a warm advocate of two meals a day, and moderate ones.

"Temporate people with good digestion never feel their stomachs—forget they have stomachs—while these big eaters are always hungry, faint, or bloated, troubled with eructations, acidity, diarrhœa, or some other unhappy condition of the digestive apparatus.

"Persons having a good stomach to begin with can by practice learn to digest an enormous quantity of food. If they give their whole force and vitality to this business of grinding grist, they can, in the course of even a short life, grind through immense quantities. But the wiser, the more human way, is to find out just how much food is needed to run the machine, exactly what fuel will keep the system at the best working point, and never pass these bounds.

"For years the author had eaten three hearty meals a day. At length, upon a careful consideration of the physiology of digestion, he thought he was probably using too much of his force in that function. He reduced to two meals a day. He cannot express what freedom of mental and bodily activity he experienced. Men with large heads and well-made bodies sometimes consume so much of their nerve force in digestion that they have nothing left with which to achieve those triumphs that otherwise would be easy to them."

The Management of Anæmia.

Dr. T. J. Biggs, writing on this subject, says: "It is doubtful, in my mind, whether the average doctor realises the frequency of anæmia. I am sure that if the general practitioner gave due attention to the factor anæmia, we should have comparatively few cases of disease extending into the chronic stage. Too few physicians are accustomed to take into account all the elements of every case, including this, the most prevalent and essential of all. Any disease that depletes the system and draws largely on the vital forces will involve the condition we call anæmia. On all such occasions, it is of the first importance for the doctor to be constantly on the look-out for this condition. The best means of diagnosis is microscopic examination of the blood, to determine its quality from the number of red corpuscles and the proportion of hæmaglobin, and also as to its freedom from bacteria.

"As to the treatment of anæmia, blood, in my opinion, is undoubtedly the only agent that can absolutely restore the normal condition of the blood. Iron has long been the favourite remedy with the profession for the treatment of anæmia. But a careful study of clinical cases, and careful perusal of the opinions of the most intelligent medical men, will elicit the fact that this remedy will not all the time produce the most satisfactory results. In fact, the majority of physicians will tell you that iron will act favourably up to a certain point only. Why is this? It is because iron preparations are not readily absorbed, and because they can only stimulate cell proliferation, but cannot help the deficient nutrition of the proliferating cells. It is for this reason that, as much clinical experience has proved to me and many others, patients put on iron and other so-called blood tonics seldom make any permanent improvement. The agent that brings results clinically is one that not only causes rapid cell proliferation, but supplies the new-born cells with direct nutrition, thereby causing them to proliferate in turn; thus finally restoring the blood to the normal standard."

Vaginal Colpotomy: Its Advantages and Limitations.

Dr. T. Henry Wilson read a paper on this subject at the Royal Academy of Medicine in Ireland, Feb. 11, 1898. (British Med. Journal, Feb. 26.) Having described the method of anterior colpotomy, he pointed out the facility with which the adnexa might be drawn down and examined, adhesions of the ovaries separated, and tubes and ovaries removed, or, if found healthy, replaced. Small subperitoneal myomata, if pedunculated, might be ligated, or, if sessile, incised, removed, and the peritoneum closed over. Small ovarian and par-ovarian cystomata might likewise be easily treated, or if too large the contents might first be evacuated, the pedicle tied, and the cyst removed. He expressed disapproval of the operation of vaginal fixation for retroversion, except in cases past the child-bearing period, or for the control of hæmorrhage impossible by other means. He then dwelt specially on the treatment of pyosalpinx by this method, and laid stress upon the usual site of rupture of the pus sac when separating adhesions—namely, the posterior surface, which was the most unfavourable situation in operating by cœlitomy, but favourable when by vaginal colpotomy. He strongly advocated removal of the uterus in severe cases of pyosalpinx with dense adhesions of long standing. Having described the operation of posterior colpotomy, he discussed the question of pelvic hæmatocele and pelvic abscess, pointing out the great advantage this method presented for efficient drainage. Densely-adherent ovaries deeply situated in Douglas's pouch he regarded as suitable for the posterior operation, but he deprecated treatment of ruptured tubal pregnancy by the vaginal method. Two difficulties in colpotomy were emphasised, namely, rendering the vagina aseptic and reaching the peritoneum. He also drew attention to the ever-present danger of wounding the ureters. He compared the separation of adhesions by Schultze's method and vaginal colpotomy, with the danger of concealed hæmorrhage in the former, and expressed his preference for the latter method as being more under control. He insisted strongly that no one should undertake vaginal colpotomy who was not prepared to open the abdomen if found necessary, as there was always present the danger of uncontrollable hæmorrhage, and the possibility of being unable to complete the operation from below. He then mentioned certain cases not suited to this operation, as large dermoid tumours, deformity of the pelvis, rendering the operation very difficult; large ovarian tumours, and advanced ectopic gestation. He claimed as advantages the absence of risk of ventral hernia, less shock, absence of the distressing thirst so common even after exploratory abdominal incision, and more speedy convalescence. In summing up, he thought the question to ask himself was, Can this be done by the vagina?

Some Modern Methods of Treating Fractures.

Buscarlet (British Medical Journal, Feb. 12, 1898) insists on the fact that the best method of treating fractures is a combination of the old method of complete immobilisation of the parts with massage and passive movement. Those who follow the classical method exclusively get straight limbs at the expense of free movement, while those who follow Lucas Championniere's advice without understanding it, and use massage alone, produce lifelong deformities. The author's method is to apply light, easily removable plaster splints, and to seize the first opportunity, when there is a certain amount of union, to begin passive movements. This varies for each fracture, the time to begin being earlier for fractures at the wrist and shoulder, for instance, than for those at the elbow, knee and ankle, while it is latest for the humerus and ankle when there has been much displacement. He gives fourteen cases of fracture in various parts thus treated where the cure was very rapid and satisfactory. Labbé believes that the treatment by passive movements and massages is excellent for some fractures, such as articular and periarticular, but that immobilisation is necessary for others, such as all fractures about the middle of long bones, and especially those at the lower third of the leg. To treat these by massage is to court the formation of false joints. Lucas Championniere agreed with Labbe that a few fractures, such as those at the lower third of the leg, required splints; otherwise all should be treated by massage and movements, since immobilisation was an unfavorable condition for repair. He did not believe in the danger of false joints. J. B. Roberts relates the case of a man with fracture of both legs of five month's duration where deformity and overlapping with greaty delayed union occurred. He cut down and wired the worst one; some suppuration, but no union followed. He then applied a rubber bandage round the lower part of the thigh so tightly as to keep the leg blue and swollen, with the idea of increasing the formation of callus by the circulatory changes. The patient wore this bandage and a light plaster splint day and night for three and a half months, and was encouraged to walk with a stick. Consolidation had also taken place in the other leg, which, however, had never been so bad, so it is difficult to tell exactly the part played by the congestion method, though it seemed to do good.

New Clinical Sign for Operation in Croup.

The Medico-Surgical Bulletin, February 25th, 1898, publishes an abstract of a paper recently published by M. Bayeux. He asks: "At what moment shall we operate in croup?" In 1859 we hesitated to intervene too soon because tracheotomy was often useless and often dangerous by itself. To-day, we hesitate to operate too soon because serotherapy has extended the list of spontaneous cures. On the other hand we then feared to defer operation until too late because tracheotomy was the only operation for croup. Now, we need not be so anxious in that direction since tubage may be so easily employed as relief, especially that form of it called *ecouvillonnage*—momentary tubage (repeated if necessary).

In all cases, we must operate neither too soon nor too late. The rule is difficult to assign, but the author connected it with the "contraction of the accessory muscles of inspiration." He noticed that these were engaged in the following order, the trapezius, the omo-hyoid, the scalenus anterior, and the sterno-mastoid. The sterno-mastoids contract precursory to the conditions of asphyxia, preceding them by a few hours. Their action consists of an active rhythmic tension, persistent and synchronous with the inspirations. This must be differentiated from what is apparently a passive tension of these muscles perceived by pinching the muscles lightly between the thumb and forefinger. This sign has also a prognostic value, in tubage indicating progressive obstruction of the tube, where there are no other signs.

In a child from whom the tube has been removed it indicates the need of replacing it. In tracheotomized patients it denotes an estopped canula.

This sterno-mastoid sign, then, warns of the near urgency of surgical interference in croup and notifies the physician that tubage tracheotomy, or other prompt measures needs to be resorted to, if grave operative conditions are to be anticipated and avoided.

M. Rauchfuss, of St. Petersburg, thinks this sign is not more to be relied on than another, first noticed 40 years ago by Gerhardt, that is the failure of the pulse in inspiration, which he calls inspiratory asystole, but which in France is called the paradoxal pulse, especially described by Variot.

Euchinin in Malaria.

Dr. St. Geo. Gray (British Medical Journal, Feb. 26, 1898) states that since last August he has observed the effects of euchinin in this disease with very satifactory results. He says:

Contrary to the statement of Prof. Von Noorden, that fifteen grains of quinine are equal to twenty-five or thirty grains of euchinin, I find that euchinin is a more powerful antipyretic than quinine, and that, in malarial fevers at least, ten to fifteen grains of euchinin are as efficacious as twenty to twenty-five or thirty grains of quinine sulphate, and that it nearly always, in doses of twelve to fifteen grains, causes buzzing in the ears, if not other symptoms of cinchonism.

The largest dose I have given has been fifteen grains once or twice a day, always commencing with a good purge, which I consider essential in the treatment of all malarial fevers. This is sufficient in most cases, following the treatment with tonics and change of air if possible after the temperature has remained normal for a few days.

In concluding his interesting paper he further says:

1. Euchinin is as effective as quinine in malarial fever.
2. It causes cinchonism.
3. It is tasteless, therefore easily administered. This is its great advantage over quinine.

The readiest form of administering euchinin is the simple powder placed dry on the tongue and washed down by a little water. As it is very bulky, some patients prefer it in cachets; but all solutions of euchinin that I have seen are decidedly bitter, presenting no advantage over quinine.

I do not consider cinchonism such a fatal objection as the intensely bitter taste of quinine. My experience of malarial fevers is that quinine and the malarial poison being antidotes to one another, cinchonism is the sign that a sufficient quantity of quinine has been taken to overcome its antagonist, the malarial poison, as mercurialism is the sign that the syphilitic poison is under control.

If euchinin can be proved to be even nearly as effectual as quinine, its tastelessness alone should recommend it to many as a substitute, notwithstanding that it is not altogether free from some of the other objections to quinine.

The Gonococcus.

Heiman, (Medical Record) reports a series of experiments with the gonococcus of Neisser which resulted in the following summary:

1. The gonococcus can be kept alive in certain liquid culture media as long as eighty-two days.

2. The gonococcus can be transplanted probably, indefinitely from one culture medium to another. The author succeeded in transplanting it twenty-five times.

3. Fifteen cases of chronic urethritis pronounced on clinical evidence cured were found to be entirely free from gonococci, as judged by cover-glass preparations and cultures.

The statement of Stearns, Pescima and Eraud that the gonococcus occurs in the normal urethra, is not satisfactorily proven by their published experiments.

5. Rectal gonorrhœa can often be detected by suitable examination. In two out of four cases of the author's own, a bacteriological diagnosis was possible.

6. Gonorrhœal urethritis may be a sequela of ophthalmia neonatorum.

7. The author's experiments on the inoculation of the eyes of newborn rabbits and kittens with gonococci gave negative results.

Division of Heredity.

At a recent meeting of the Leeds and West Riding Medico-Chirurgical Society Dr. Churton related some cases observed by him which seemed to justify the proposition that a person was liable to or had a proclivity to the diseases of the parent whom he most distinctly resembled, and not to those of the other parent. Thus (1) a man, aged 63, with no apparent cause for any illness, had cancer of the œsophagus. His father died at 78 of apoplexy, but his mother, whom he closely resembled in features and disposition, died at 63 of cancer of stomach. (2) A lady, complaining of various neuroses, stated that she was one of a family of eleven; that of these all having dark complexions, like the mother, were alive and strong, but all with fair complexions, like the father, were delicate, and except herself, were all dead. (3) A man, aged 37, had wasting diabetes. His mother, whom he greatly resembled, died of that disease at 40. His brothers and sisters, the eldest aged 47, resembled the father, and were quite well. Several similar instances were mentioned. Apparent exceptions had been met with, but none of them had hitherto withstood investigation. Thus (4) a man, aged 37, dreaded phthisis, because his father had died of that disease at 38. He stated, however, that he resembled his mother who was alive but dyspeptic. No positive signs of phthisis could be found, but he was dyspeptic from alcoholic excess. Six months later he was reported to be decidedly consumptive. Inquiries then elicited that he had been wrong in his statement, and that his resemblance to his father was very close; he was unlike any of his brothers and sisters, who all resembled the mother. Details of cases in which a like mistake had been made by other patients were given. Dr. Churton hoped, either then or at a future meeting to receive information of (*a*) cases in which persons markedly resembling either parent had had the same disease as that parent, especially the fatal disease; or (*b*) on the contrary side, cases in which persons markedly resembling either parent in features, etc., had resembled the other parent in proclivity to disease, especially the fatal disease.

Diet of Prospective Mothers.

The Public Health Journal claims that an excess of water and albuminous food should be avoided—water, on account of its tendency to produce hydroamnion, and albumen, because it favors excessive growth of the child.

The following is the diet prescribed, which has been tried in a number of cases:

Meat once a day, green vegetables and potatoes, avoid eggs, peas and beans, as they are too rich in albumen. The advantages claimed for this regimen are:

1. The patients are active until the eve of their accouchement; they do not suffer from a sensation of fulness, excessive formation of fat, thirst or constipation.

2. Rapid and easy delivery, even in those cases in which the previous labors have been prolonged and difficult.

3. There is never an excess of liquor amnii.

4. All the women thus dieted have nursed their babies. The quality and quantity of milk were always good. The children were very small, but healthy and well formed. They averaged about six pounds in weight.

Hospital Enterprise.

A hospital in Omaha is distributing broadcast a catchy circular, which reads in part as follows:—"Accident insurance is a good thing. Insurance against ordinary sickness is a better thing. Both in one is the best thing. Do not wait until sickness or accidents come to you before taking out a membership certificate entitling you to free admission, bed, board, nursing, medical and surgical care in case of accident or sickness in the Methodist Hospital, of the Omaha Hospital and Deaconess Home Association, of the Methodist Episcopal Church. A two-edged sword cuts both ways, and accomplishes its mission in either direction. So does your membership fee. If you have occasion to use the hospital as a member, you have the first right to accommodations, above any other class of patients, and you will be most tenderly cared for. If the Lord spares you in perfect health, your money will assist the institution in caring for someone else not able to pay. It thus becomes a sweet charity whose fragrant memory will follow you all your life." The cost of membership is 10 dollars a year in advance. The payment of 250 dollars in advance makes one a life member entitled to continuous free treatment for himself or, "if the Lord spares him in perfect health," for someone else of whom Providence is not so careful.

The Treatment of "Inoperable" Sarcoma by Means of Coley's Fluid.

The *Lancet* for February 5th publishes a long article on this subject by Mr. C. Mansell Moullin in which he gives a detailed account of the treatment of sarcomata by Coley's fluid, together with the histories of several cases which have come under Dr. Coley's observation. These cases, says the author, have been thoroughly verified and authenticated, and they are neither few nor doubtful. But there is so much conflicting evidence that it is not an easy matter to form a definite opinion; however, the following conclusions seem to him to be justified at the present time:

1. It can not be denied that there is a considerable number of cases in which sarcomata that had been given up as hopeless often after repeated operations have absolutely and entirely disappeared under this method of treatment. There is no other method of treatment (except infection with the streptococci of erysipelas itself) of which this can be said.

2. In some of these cases the patients have remained free from recurrence for upward of three years, the period of which, in the case of excision of the breast for scirrhus, is regarded by many operators as justifying the use of the term cured.

3. In several of the cases in which sarcomata have disappeared after an attack of erysipelas the patients have remained free from recurrence for seven years and upward.

4. The fact that there may be a few, a very few, cases recorded in which sarcomata have disappeared, either spontaneously or after such diseases as acute specific fevers, has nothing to do with these conclusions. (The statement that sarcomata do occasionally disappear is repeated with great regularity, but well-authenticated cases in which this has taken place, verified in the way in which Dr. Coley's have been verified, are very difficult to find.)

5. These conclusions are not in any way invalidated by the fact that injections of the mixed toxins are sometimes followed by the disappearance of other growths, such as lupus, keloid, syphilitic deposits, carcinomata, etc. It may make the disappearance of sarcomata more difficult to understand, but it in no way disproves it.

6. The proportion of cases of sarcomata in which the patients are cured by the injection of the mixed toxines depends among other things upon the histological character of the growths. Spindle-celled sarcomata are by far the most hopeful. This suggests the conclusion that the mixed toxines have a selective action, even if it is not specific.

7. The disappearance of sarcomata is not due to inflammation, but to an intensely rapid form of fatty degeneration comparable only to that which affects the hepatic cells in acute yellow atrophy of the liver. Inflammation and sloughing, when they do occur, are septic complications.

8. Degeneration and absorption may occur whether the toxines are injected directly into the tumor or into some distant part of the body. In the former case, however, the effect is more rapid and constitutional symptoms are severer.

9. The method is attended by a considerable degree of danger. It should, therefore, only be adopted in those cases for which there is no other remedy. The chief risk appears to be from collapse and pyæmia. There must always be danger of the latter if there is a suppurating or a sloughing sore. It may be argued that patients whose lives are immediately threatened by a malignant growth will never be cured by any remedy that does not involve some degree of risk.

10. The toxines are of no use unless the cultures are taken from a virulent case of

erysipelas or are made virulent by passing the streptococcus through rabbits.

11. The *Bacillus prodigiosus*, in spite of theoretical objections, has the effect of immensely increasing the reaction.

12. The effect is most striking in the case of rapidly growing sarcomata. Slowly growing ones appear to have much more resistance. Probably this merely means that masses of embryonic cells with little organization give way to injurious influences more readily than those that are more closely knit together.

13. Patients often gain in weight and strength while under treatment,

14. Treatment should be continued until the whole growth has vanished or has become so small that it can be removed.

15. If there is a recrudescence of the disease it does not follow that the toxines will be as efficacious the second time as they were the first. Whether this is the result of tolerance having been established can not be said.

16. Recurrence in other parts of the body may take place after many years.

17. The severity of the reaction is very variable. Probably this depends upon the rapidity with which the injection is absorbed rather than upon any cumulative action it may possess.

Work and Worry.

"Studying too hard," "over-worked," are charged with many deaths, but in the majority of cases most unjustly. Trouble kills, but it is a very rare thing for a man to think himself to death, unless his thoughts are intimately connected with something painful and distressing. Study is a boon to the student. He would rather study than eat. The greatest students have lived long and happily to fourscore and beyond. Thought is to the brain what exercise is to the physical constitution: it keeps the channels of life clear, the blood-vessels unobstructed, and the vital fluid courses along them, distributing newness of life and vigour of action to the latest hour of existence, while the want of thought brings stagnation to the circulation and causes man to drivel a d sleep in old age—dead as to everything except eating and dozing and cowering over the fire. Men may study hard, and after fifty may study with comfort and advantage for five, ten, and fifteen hours day after day; and if the studies are pleasurable they promote the general well-being of the system, both physical and mental, only if abundant sleep is had, with a regular supply of simple and nourishing food, sitting down to meals in pleasant moods, and allowing a good half-hour before study is resumed. Many of our literary men die prematurely, not from over-study, but from depressing mental states and irregular or excessive eating and drinking. It is high-pressure and constant tension rather than steady, continuous labour of body or mind which hurries multitudes to their graves years before their time. With all haste there is impatience, solicitude, worry. In the present age we fear that everything is sacrificed to "hurry."

How Shall an Infant be Nourished Whose Father is Syphilitic?

The question as to how a child shall be nourished whose father is syphilitic—the mother being healthy—to wet nurse without endangering the health of the nursing woman? is described by Fournier in a recent issue of Pediatrics. He says:

1. It may be so nursed where the following favorable conditions are present: if the health of the father is perfectly satisfactory; if the syphilitic infection has occurred a long time ago, say ten years, and if it was benign, only manifesting itself in a small number of specific symptoms, where no syphilitic phenomena have appeared during the last eight or nine years, and where treatment has been pursued in a systematic manner for a long time.

2. It should not be wet-nursed in the so-called intermediary cases, where the danger of infecting the nurse and the chances of not doing so are about equal; for example, the father has been syphilitic for about three years, the symptoms neither very slight nor severe, the last symptoms having occurred only a year ago; treatment having been carried out systematically for a few months only. In these cases the chances for the immunity of the child may, of course, be great, but the possible infection of the nurse cannot be positively excluded. In many cases, however, the rejection of a nurse is equivalent to the choice of feeding the syphilitic child from the breast of the mother or with artificial food. In those cases in which it is impossible for any reason for the syphilitic child to nurse from its mother nothing remains to be done but to bring it up on the bottle. Fournier also enters a protest against the practice of allowing children of syphilitic parents to nurse from a woman, but taking them from the breast as soon as the slightest symptoms develop. The reason for this protest is that Fournier believes the necessary adequate supervision to be practically impossible, as small lesions of the mouth or nose in the infant may be overlooked by the

physician in spite of a careful examination, and because experience has proven that in spite of this careful supervision the nurse has been infected.

Another question to be answered is how the physician is to bear himself when the father of the child has previously made arrangements with the nurse in case the latter should be infected. Fournier considers that the physician's concurrence in such a case is undignified, and that he is not absolved in this compact by law. Leaving aside the question of law, however, such an acquiescence is neither honest nor moral, for the reason that the nurse is not aware of the magnitude of her danger.

It is the physician's duty, therefore, to protest against the consummation of such an arrangement, and, if necessary, to withdraw in order not to compromise his dignity. We will therefore be forced in most cases to counsel the bringing up of the child at the mother's breast, even should it be certain that individual exceptions to Colles-Baume should occur. Fournier himself is not cognizant of any such exceptions in his own experience. The husband, in such a case, should, however, consider it his duty to tell the mother the truth, in order to induce her to nurse her own child.

For the rest Fournier, referring to the statistics lately published by Budin, and to his own experience, remarks that the latest advance in the artificial feeding of infants has greatly increased the chance of raising syphilitic children.

The Transmission and Dissemination of Cancers.

At a recent meeting of the West London Medico-Chirurgical Society, Dr. C. A. Ballance introduced a discussion on the Transmission and Dissemination of Cancer (Lancet, Feb. 12, 1898). For a great number of years he had been working at the subject of cancer in conjunction with Dr. Shattock. He stated that he believed that the death-rate from cancer was on the increase. There were three main theories as to the origin of malignant tumors and possibly also of innocent ones: (1) Spermatic, (2) embryonic, and (3) parasitic. Having briefly discussed the two first problems, he dwelt chiefly upon the third. He alluded to the writings of Sir James Paget, particularly instancing his statement that micro-parasites, or substances produced by them, will some day be found in essential relation with cancer and cancerous diseases. He emphasised the facts that carcinoma sometimes has a purely local origin, giving as an example epithelioma of the lip, and that metastasis in carcinoma and sarcoma by lymphatics and blood-vessels in such as occurs in tuberculosis. He touched on the question of latency of carcinomatous deposits in lymphatic glands. He discussed auto-inoculation and the evidence for the transference of cancer from one animal only to another of the same species. Geographical distribution of cancer was dealt with and particular reference made to noted cancer homes and districts. The phenomena of atavism were noticsd as were some other considerations. He then proceeded to give a detailed account of the elaborate experiments conducted by Shattock and himself in order to discover the protozoic parasite although these experiments have been negative in their result. Infection experiments also met with the same unsuccessful ending. Further he alluded to the chemistry of carcinomatous growths, especially noting the facts that in cultures of pathogenic bacteria albumose was present, but in malignant growths none was found and that encapsulated protozoa had chitin or cellulose in their capsules, but neither substance was found in fresh scirrhous tumors. Dr. Brodie had kindly made this research. Dr. Ballance concluded by affirming that the doctrine of the parasitic origin of cancer recommends itself as bringing the essential pathology of malignant growths into natural relation with other diseases the parasitic pathology of which admits of scientific proof.

Constitutionality of Laws Regulating Practice of Medicine.

Under the civil law no barriers were drawn around either professions of law or medicine (Jour. of Medicine and Science). Anyone who pleased might practice them without any previous qualification, subject always for injuries inflicted upon others. The common law, having an habitual regard for the widest freedom of action and borrowing from the civil law, always favored the right of any man to practice in any profession or business in which he was competent. It was a right inherent in every man to practise the art of medicine. But in modern times the tendency of legislation is to prescribe qualifications for the practice of the professions of law and medicine. Its competency cannot be successfully impugned. Learning and a good moral character may be required as a condition to the exercise of the rights to practise them. A law enjoining reasonable requirements as to learning and character is simply an exercise of the police power. This power may be exercised in barring from admission those who apply for the right to practise the profession of medicine and also in excluding those who have been practising it. Such legislation is justified by the safety of the lives, health and comfort of the people, which is the supreme law. In no case is the practice of medicine a property right. Nor is it vested right. But it is a valuable right, and no one can arbitrarily and without reason be deprived of it. Such is the general statement made by Judge Pugh, of the court of common pleas of Franklin county, Ohio, in the case of State vs. Ottman, where he holds the law of that State passed February, 1896, entitled "An act to regulate the practice of medicine," constitutional. That it authorises the medical board to refuse to grant or revoke a certificate to practise "if any person guilty of felony or gross immorality," he does not consider in violation of the provision of the constitution of the United States which prohibits the passage of any ex-post facto law or bill of attainder, though it was argued that this was a deprivation of a civil right for past conduct. Neither does he think that it violates the provision which ordains that the citizens of each State shall be entitled to all privileges and immunities of citizens of the several States; nor anything in the fourteenth amendment; nor the constitution of the State, especially in its provisions as to appeals.

Practical vs. Theoretical Tonsillotomy.

Dr. Coulter presented to the Section on Laryngology and Otology, at the Forty-eighth Annual Meeting of the American Medical Association, at Philadelphia, Pa., June 1–4, 1897, a paper with this title. Among many other instructive things he says:

Very often the removal of one tonsil will effect a very considerable decrease in the size of the other. It will also have, at times, an almost miraculous effect upon a pharyngitis or other inflammatory action in the contiguous structures. Middle-ear difficulties seem especially amenable to its beneficent influence.

In closing allow me to call attention to several points which experience has taught me, will assist in giving the most desirable results:

1. Do only a small amount at each heating of the electrode—work five seconds and allow the patient to rest fifteen seconds.

2. Burn only where you can see just what you are doing.

3. Use an electrode bent at right angles and having a fine point. (At least three electrodes are desirable for the operation.)

4. Do not attempt too much at one sitting.

5. A strong solution of silver nitrate is an excellent hemostatic in case there is slight hemorrhage.

6. Be sure the electrode is thoroughly heated when you attempt to burn.

7. Cut off the portion loosened at each seance; it prevents healing by its friction, and is often an annoyance to the patient.

8. Do not operate if the gland be acutely inflamed.

9. Always remember the normal shape of the tonsil; and that one must dissect much more deeply at its superior portion in order to get all of the pathologic tissue.

10. It is sometimes best to cut from below upward while taking out the inferior portion; in this convenience should be the guide.

11. By care, the operation may be rendered almost if not entirely bloodless.

12. The indication in all cases is eventual total ablation.

13. Succeeding steps on the same tonsil should not be more than ten days apart.

14. When hemorrhage occurs, stop the bleeding at once with the heated electrode, and apply a solution of silver 6 grams to water 30 c.c., or stronger.

15. Try the method, in suitable cases, and I feel confident you will concur with me in the opinion that it possesses some advantages not found in any other.

Mortality of Infants in Ireland.

Dr. Letters, in an article in the Dublin Journal of Medical Science, upon the mortality of infants in Ireland, says that they are allowed to perish in myriads by feeding bottles with foul rubber tube-fittings, by farinaceous substances which ferment and decompose as soon as ingested, by neglect, by exposure, by deprivation of the natural nutriment, by preventable causes like premature birth, by preventable diseases like diarrhœas and diseases of the respiratory organs. (Archives of Pediatrics.) Infants want protection against that killing ignorance which does them to death by artificially-induced diarrhœas, by convulsions from improper feeding, by marasmus from starvation. Let the question of the saving of infant life receive from the profession that measure of study to which it is justly entitled, let the best means be formulated to stem the infantile death current in our populous urban centres, and let the Legislature be urged to deal with the subject in a spirit of humane comprehensiveness. It is unfortunately true that Ireland is not the only country to which these words might be applied.

Stricture of the Urethra in Male Children.

Dr. L. B. Bangs (Medical Record) says: It is sometimes remarkable with what rapidity evidences of severe and intractable stricture follow an injury upon the perineum of a child, if it is not properly treated. Retention of urine is, of course, often reported immediately; but within a short time after the "apparent cure of the stricture by soundings," incontinence, the formation of fistulæ, and distressingly frequent urination make their appearance.

In regard to the subject of acquired stricture, it should be observed, first, that the etiology of these cases is often very obscure. In some we are able to obtain a positive and direct history of gonorrhœal infection; in others, vague statements from parents point to some "inflammation" of the parts; while in many no catarrhal or blennorrhagic antecedent condition can be ascertained. From the observation of certain cases of stricture in young adults, the author has been led to form the opinion that many of these obscure cases will be found to be due to an extension into the urethra of a balanoposthitis. This opinion is not based upon conclusive evidence, but he has had under his care young adults with the subjective and objective signs of stricture of the urethra who gave a long history of dysuria and of memories from childhood of inflammations about the prepuce, but of no disease acquired from nurse or others.

Of course, it is easy to cast a cynical doubt upon the statements of these individuals and suspect their chastity, but being interested in the subject and having had some experience in regard to stricture of the urethra in boys, the author has made the closest possible investigation with an unbiased mind and with the determination to arrive at a just conclusion. He has been compelled to attribute many strictures to non-venereal sources in childhood.

Abscess of the Brain in Infants.

Dr. Emmett Holt concludes a good paper recently contributed to The Archives of Pediatrics as follows:

1. Abscess of the brain in children under five years is rare.

2. The principal causes are otitis and traumatism.

3. It rarely follows acute otitis, but most often neglected cases, and is usually secondary to disease of the petrous bone.

3. In the cases occurring in infancy without evident cause, the source of infection is probably the ears, even though there is no discharge.

5. The development of abscess after injury to the head without fracture of the skull is extremely rare. In nearly all of the traumatic cases, definite cerebral symptoms show themselves within the first two weeks after the injury. In cases with falls, as remote as several months, there is probably some other cause, such as a latent otitis.

6. In a large proportion of the cases only general symptoms are present, and these in very great variety.

7. Focal symptoms may be misleading unless they are constant, and even then they may depend upon associated lesions, such as meningitis. Motor symptoms only can be trusted since the sensory symptoms are difficult or impossible to determine in infants or young children.

8. Rapid progress, fever, and a history of injury or otitis generally make a diagnosis from tumor easy. In the slower cases with little or no fever, valuable assistance may be obtained from lumbar puncture.

9. From acute meningitis the diagnosis is more difficult, and in the cases in which there are only terminal symptoms the diagnosis is impossible. In the more protracted cases, the distinctive points with reference to abscess are the slower and more irregular course and, as a rule, a lower temperature.

10. On account of the great amount of shock attending brain surgery in very young children, operation should not be urged unless definite localizing symptoms are present, the principal one being hemiplegia.

An International Health Exposition in New York.

From April 25th to May 31st an International Health Exposition will be held at New York in the Industrial Building known as the Grand Central Palace, Lexington-avenue. The New York Household Economic Association and kindred organizations will co-operate with the management of the Exposition, which will embrace everything relating to health, both indoors and outdoors, and illustrate the sanitary and hygienic progress of the century. Mr. Charles F. Wingate is the supervising director. All exhibitions of this description should be encouraged, for they are of distinct benefit; firstly, in bringing together for comparison the latest sanitary appliances and methods; and secondly, in educating the public in their use and benefits. The second point is perhaps the most important, because whatever sanitarians may do with regard to the improvement of their science the resulting benefits to the health of the community must be tardy unless the public are ready to help in the application of the improved process.

The Modern Management of Diphtheria.

The March edition of the Archives of Pediatrics publishes an abstract of a paper by Caille in which the following points are valuable :

In the modern treatment of diphtheria we rely upon (*a*) antitoxin and (*b*) supplementary treatment.

The treatment for diphtheritic inflammation consists in the *early* and *proper* administration of *reliable* antitoxin, supplemented by the naso-pharyngeal toilet. The time for discussing the pros and cons of antitoxin treatment is past; the specific curative power of this medicinal agent is an established fact. Behring's claim that if antitoxin be used early the mortality from diphtheria will not exceed 5 per cent., is borne out by the reports of competent clinicians all the world over. Opposition to anything so radically new as Behring's discovery, is one of the associating features in the evolution of scientific medicine. Vaccination and antiseptic surgery stand in evidence of this fact. Any practitioner who studies the collective investigation reports for 1896 and 1897, on antitoxin for diphtheria and croup in private practice, issued by the American Pediatric Society, and fails to use antitoxin because he "*does not believe in it*," should not be entrusted with the management of a case of diphtheria, and the practitioner who *thinks* a case mild, and waits for several symptoms before using antitoxin, utterly fails to grasp the situation, and will frequently be disappointed.

Antitoxin is indicated in doses of 200 units for immunizing exposed persons, and in doses of from 1,000 to 2,000 units to combat the disease: 1,000 units for very young children; 1,500 units for older children; 2,000 units in croup cases.

It should be employed at the earliest possible moment, and the dose repeated the following day and subsequently as often as is necessary. The author has given 10,000 units in one week to a child nine months old, and has seen no ill results. The dosage is expressed in units, and not in the serum quantity; the preparation having the highest number of units in the least quantity of serum, and from an *absolutely reliable source*, is to be preferred.

The injections are made in any region where a fold skin can be picked up. The skin, the hands of the physician and the syringe must be *clean*. Any syringe will answer, but the best syringe is the one made entirely of glass, and now obtainable in the shops.

The writer also injects a curative dose of antitoxin in every case of *scarlet fever* coming under his notice, because this disease is frequently complicated with diphtheria, and he also administers a curative dose in case of *measles* and *whooping cough* if the throat shows the slightest appearance of a pseudo-membranous patch. It would appear rational to give an immunizing dose in puerperal cases, where a diphtheria case exists in the same house; also to children on whom an operation is to be done in the nose or throat and where the culture test shows the presence of diphtheria bacilli without clinical symptoms. Antitoxin is also indicated in *diphtheria of the eye*, which is, fortunately, very rare. The more common croupous conjunctivitis is not to be confounded with eye diphtheria, in which the eyelids are phlegmonous and hard.

As regards the combined use of *antistreptococci and antidiphtheritic* serums in cases of mixed infection, no positive advice can be formulated at the preset time.

Infantile Diarrhœa.

The Lancet, in one of its recent issues, editorially says that this disease is one of interest, always fresh if not always the happiest. Its varying causation, its difficulties, the sudden and rapid improvement which, even in desperate cases, has often rewarded its judicious management, suffice to explain why this disease has so frequently been treated in the monographs of practitioners. By one or other of these a variety of dietary and medicinal measures have been extolled from time to time, each in different ways illustrating rules of treatment which are successful because they are founded on a rational pathology. The questions before us in such cases do not concern merely a choice of drugs. The value of many such may be freely admitted, but this is not enough. Our first duty is rather to ascertain the stage of the disorder, the presence or absence of irritant matters in the bowel, and to decide as to the means of their removal if present. Even this last, though an apparently rational proceeding, is not always immediately advisable, since nature may already have exerted her energies to exhaustion. The routine aperient is not then appropriate. So with astringent remedies; now it is chamomile, now bismuth, now rhubarb and opium, now another. Each case is its own evidence, though it is none the less indebted to the practitioner's experience of others like it. In giving bismuth the best rule is to give it freely. Dr. A. C. Dutt in a short paper on this subject speaks highly of tincture of chamomile, which he found invaluable in a recent epidemic of infantile diarrhœa. How often the disorder is kept up in infancy by a persistence in milk diet has frequently been proved. In such cases a temporary cessation of milk and the adoption of raw meat juice in its place has repeatedly turned the tide of illness towards recovery. These three points therefore—the removal of irritant matter, if practicable, by a moderate purge or enema, the use of bland astringents, and the careful regulation of diet—constitute the substance of treatment in diarrhœa. More precise details must be left to the judgment and experience of the practitioner to whom each case is an individual microcosm of instruction.

The Treatment of Hæmorrhage by Local Applications of Gelatinised Serum.

At the meeting of the Hospitals' Medical Society, held on Feb. 11th, M. Siredey (London Lancet, Feb. 26, 1898) begged to be allowed to draw the attention of his colleagues to the excellent results obtained in the treatment of hæmorrhage by the use of local applications of gelatinised serum after the method of M. Paul Darnot. During the last four months M. Siredey has had occasion to treat nine severe cases of metrorrhagia, some in private and others at the hospital, and in every one a successful result was obtained. The hæmorrhage arose from fibroids, abortion and retention of placental tissues or pieces of decidua, and most of the cases had not been relieved by the ordinary methods of treatment, such as hot douches, plugging and the like. M. Siredey employed one of the two following methods. After washing out the vagina with hot water, previously boiled so as to remove any clots, he swabbed out the uterus with a pad soaked in the serum and gelatin and afterwards introduced into the uterus a narrow piece of sterilized gauze soaked in the serum. Without having to employ any tight plugging he was almost invariably able to arrest the hæmorrhage in this way. In one case which occurred in his private practice he happened to have no gauze at hand; he therefore prescribed an injection of two pints of the gelatinised serum, taking care to place the patient on her back with the buttocks raised by a pillow so that clotting should take place in the vaginal fornices in contact with the neck of the uterus. The same treatment, either injection of the serum, or light plugging with gauze steeped in the same, gives excellent results in epistaxis. The preparation of the serum is very simple, the formula being:—sodium chloride seven grammes, water one litre and gelatin fifty grammes. The whole is sterilised in an autoclave, taking care that the temperature does not go above 105 degrees C. for in that case the gelatin will become modified as to its power of coagulation. If it is thought well there is no harm in adding perchloride of mercury in the proportion of one in 1,000, or carbolic acid in the proportion of one in 1,000, but this is not necessary. The serum can be put up in flasks of various sizes and will keep good for a long time. M. Siredey has been successful in every case where he has employed this method and it has one great advantage over other methods in that it is quite harmless.

Methylene-blue in Malarial Fever.

Dr. Cardamatis, of Athens, has successfully used methylene-blue in the treatment of malarial fever. In his report communicated to the Deutsche Medicinische Wochenschrift he publishes 275 cases where the drug was administered. The daily dose was from ten to twelve grains ("Gran.") for adults, eight grains for younger patients, six grains for children, and one or two grains for infants at the breast. In typical intermittent fever the drug is given ten hours before the beginning of the paroxysm; in remittent or continuous fever eight hours before the remission. When both methylene-blue and quinine failed a combination of the two drugs proved useful, but the effect was less marked when the methylene-blue was associated with arsenic. The combined treatment was necessary in only thirty of the 275 cases. In quotidian ague, when the patients had become free from fever, after five days administration, the drug was given for six days. A pause of two days followed, after which it was again given for four days; after a second pause of eight days there was a final administration spread over two days. After twenty-two days a radical cure was obtained in this way. When the attacks appeared again after the fifth day, treatment was continued for forty-eight days with several interruptions. In tertian and quartan ague the first stage of the treatment lasted twelve days, and the remedy was given for sixty days, with several carefully arranged intervals. The advantages of methylene-blue were especially obvious in those cases where quinine had proved useless or where there was intolerance of it. The drawbacks associated with methylene-blue are the staining of the tongue and the lips; a slight amount of cystitis was also sometimes observed, but these inconveniences are very slight in comparison with the radical cure obtained in nearly every case. Immunisation seemed to be produced by the treatment, for although the convalescents continued to reside in the malarial district very few of them indeed were subsequently attacked. With the exception of the cystitis already mentioned no toxic symptoms were ever observed. In eighteen instances the fever disappeared after the first day, in thirty-six after the third, in eighty-four after the sixth, in eighty-eight after the tenth, in eighteen after the eleventh, and in thirteen after the twelfth day. In eighteen cases no cure was obtained. In thirty-eight out of the 275 cases a relapse occurred after two months.

Anemia.

Dr. R. C. M. Page, (Medical News), says this term is frequently used regardless of its real significance. At the outset we may assume that anemia signifies deficiency of red blood corpuscles and we include under this head such forms as hydremia, spanemia, and the like. If coupled with deficiency of the red there is also an increase of white corpuscles, it is no longer simple anemia but rather leukemia. This may also be associated with hypertrophic enlargement of the spleen, a disease also called leucocythemia. He notes that in all the cases observed by him it has been in men from tropical or semi-tropical climates, who had had repeated attacks of intermittent fever. In Hodgkin's disease or lymphadenoma the enlargement of the spleen is due to two causes: First, adventitious growths in its substance resembling mutton suet, on section, in which cases there is simple anemia, but at other times when the enlargement is partly from hypertrophy of its normal elements, together with the first named cause, we find not only anemia, but also leukemia. In this condition there is usually wide spreading enlargement of other lymphatic glands.

The term chlorosis is often used to express the condition of anemia regardless of age or sex. With T. Gallaird Thomas, he would restrict the term to young girls who have not menstruated, Pernicious anemia is a progressive disease. There is diminution of red blood corpuscles without increase of the white and no enlargement of the spleen. He has observed it more frequently by far among women, and usually where there have been repeated pregnancies, chronic, wasting diseases, predisposed to it. The temperature varies from 100 to 101. While the patient declines in health, death is generally due to some intercurrent disease —notably tuberculous nephritis. While the pathology of the disease is not known, capillary hemorrhages in the retina and other localities give the impression that disturbances of the sympathetic nervous system, with consequent vasomotor iregularity has something to do with it- The disease is uniformly fatal. In giving the causes of anemia, after mentioning those usually presented, he calls attention to one first observed by Meinert, of Dresden, a few years ago.

It is due to increased functional activity of the spleen from vasomotor disturbance of the nutrient vessels of that organ, caused by prolapse of the stomach and bowels (gastroptosis, enteroptosis). We find the condition referred to chiefly among women with lax abdominal walls, such as those who have borne children and those who in following the prevailing fashion wear clothing which presses down the stomach and bowels as well as the liver. We all know how common is what Strumpell calls corset liver. In prolapse of the stomach the spleen is held firmly in position by the suspensory ligament. This allows traction on the splenic plexus formed by branches from the right semi-lunar ganglia of the sympathetic nervous system. These never accompany the splenic artery and its branches into the substance of the spleen. The traction on the splenic sympathetic nerves causes irritation, with consequent vasomotor disturbance of nutrient vessels of the spleen, with increased activity of that organ. As an example of such irritation the increased heart action in ex-ophthalmic goiter may be given."

X-Ray Burn; Amputation of the Thigh.

At a recent meeting of the New York Academy of Medicine Dr. J. P. Tuttle reported a case in which ampution of the thigh had been demanded after an *x*-ray burn. The man had been injured in the war. Dr. Tuttle and Dr. McBurney had together removed a floating cartilage from the knee-joint about four years ago, and, although the operation had been largely an experimental one, it had given the man relief from pain for three years. His sufferings had then returned. Accordingly, last September, the joint had been examined with the *x*-ray, the examination lasting over one hour. There was no pain at the time, but three weeks afterward the parts began to turn red, and in two days all of the skin about the joint, except on the posterior and internal surfaces, sloughed away. Portions of the surface healed and again broke down. Then skin was transplanted from two different individuals, and the first attempts in this direction proved so successful that the remainder of the surface was covered over in like manner. But at the end of five weeks both of these areas of skin grafting broke down. When the man came under Dr. Tuttle's observation three weeks ago, an area measuring six and one-half by five and one-half inches presented the typical features of an *x*-ray burn. In consultation with Dr. E. B. Bronson and Dr. V. P. Gibney, it was decided to try the effect of constant irrigation with carbolic-acid solution. Only for the first two or three days did this seem to act well; then the surface became more unhealthy. As the man's health was failing rapidly, and he was becoming addicted to morphine, a consultation was held, and it was decided that the limb should be amputated. This was done on February 8th, and so far the patient had done well. The specimen was interesting as showing that the pathological condition found in the burned area extended down even to the capsular ligament.

Dosage in Anæsthetics.

Prof. Waller, at a recent meeting of the Society of Anæsthetists, London, referred to the experiments of Snow, which showed that definite dosage of chloroform produced in man, as well as in the lower animals, results directly proportional to the amount inhaled. Snow, Paul Bert and his own experiments coincided, and showed that double the dose which produced anæsthesia caused death. Although a titrated method, such as was employed by Paul Bert was too cumbersome for general adoption, yet some apparatus, such as Junkers, allowed a certain degree of accurate dosage. The "open method," or "slapdash method" failed entirely to do this. Prof. Waller then referred to his method of subjecting isolated nerve to the vapor of different anæsthetics and judging of their effect by noting the electric excitability by means of a galvanometer. His results were that ether affected nerve seven times less than chloroform. The effect of carbonic dioxide was, as he had previously showed, rather antagonistic than adjuvant to chloroform. Judging from nerve tissue he had shown that 1 per cent. excited, 2 per cent. anæsthetised, and greater strength destroyed the nerve. Clinical results further demonstrated that very small doses maintained anæsthesia.

Testicular Complications of Elephantiasis.

Le Dentu in the Edinburgh Medical Journal describes a form of chronic enlargement of the testis frequently met with in the inhabitants of warm countries, and associated in many instances with elephantiasis of the scrotum and lower limbs. This form of testicular enlargement, which is asociated with swelling and induration of the epididymis and spermatic cord, even when existing alone, is held to be invariably of the nature of elephantiasis, and not due, as supposed by many authorities on tropical diseases, to any malarial influence. The author has found after castration and during an operation for hydrocele that this condition, for which he proposes the name of elephantiasis of the testis, is the result not of any enlargement of the testis itself, but of distension of the lymph vessels of the tunica albuginea, epididymis, and cord, and of excessive proliferation of the connective tissue. Such charges, he points out, are met with in cases of well-marked elephantiasis of the integument and of inguino-scrotal lymphangioma. In discussing the primary cause of elephantiasis of the testes together with enlargement of the lymph vessels of the scrotum and groin, the author, whilst recognising the difficulties which at present prevent the acceptance of filariasis as an invariable factor, holds that the filaria undoubtedly plays a considerable part in the genesis of such morbid conditions. He is disposed to think that in cases of elephantiasis the filaria which is so frequently, though not constantly, present in such disease, acts not on tissues in a state of health, but on a lymphatic system that has been modified by residence in a warm climate. Cases of undoubted elephantiasis nostras that the parasite is not indispensable for the development of the lymphatic lesions.

Operations for Breast Cancer.

The discussion on this subject at the Royal Medical and Chirurgical Society continues to elicit from surgeons of wide experience confirmatory evidence of the fact that a very considerable number of cases of cancer are far more permanently cured of their disease than used to be thought possible some years ago. (The Hospital, Feb. 19, 1898.) Another point also seems clear, namely, that it is not altogether by a rigid selection of cases that these successful results have been obtained. No doubt all modern knowledge tends to emphasize the advantages of early operation in cancer; nevertheless, the cases in which long intervals of immunity, or even cure, have resulted from operation have not been exclusively those in which early operation has been done. Some of them, indeed, have been what we might call neglected cases. Mr. Jonathan Hutchinson said, in regard to this point, that his most successful cases had not always been those which appeared most promising, instancing one of a soft, rapidly-growing carcinoma in a young patient, which was freely removed fourteen years ago, the patient being quite well now, and another in which there was an ulcerated cavity into which the fist could have been placed, yet now, six years after removal, there was no recurrence. In regard to the question of the extent of the operation which should be undertaken, it was shown that, while in some cases in which operation was manifestly "incomplete," or "inadequate," according to modern nomenclature, good results were obtained, it was impossible to be sure, even by the most complete operation, that all the infected material had been removed. Sir Thomas Smith pointed out that in the long interval which occurred between the first existence of cancer as a microscopic object in the breast and the period when it became a tangible tumour there was abundant time for constitutional infection to occur. He also made the very important suggestion that, necessary as it was to remove affected glands, it was possible that the removal of healthy glands might tend to promote recurrence.

In regard to the necessity for removing the pectoral muscles Mr. Howard Marsh differed somewhat from those who advocated the very large operations which were sometimes done now. The old partial operation was, he said, finally abandoned, but he thought the pendulum had swung a little into the opposite extreme. The point at which the operation was most likely to fail lay in the impossibility of completely removing the lymphatics in the immediate neighborhood of the large vessels on a level with the clavicle. It was there, and not in the pectoral muscles, that recurrence was likely to take place, and it could not be denied that the extensive operation recommended by Halsted was attended with serious drawbacks, among which he mentioned shock—of which some patients had died—and, as a latter effect, fixation of the arm to the side with œdema of the hand and neuralgic pain. Still, if the operation should prove to secure a very long immunity these drawbacks must be accepted, but he did not think that at present this was the case.

Pepsin Secretion in the Normal Stomach.

Dr. A. Schule (International Medical Magazine) has used the method devised by Hammerschlag for the estimation of the peptonizing power of the gastric juice, in the investigation of the questions: (1) How great is the peptonizing power of the gastric juice at the height of digestion? (2) What is the effect of various ingesta upon pepsin-secreting glands? The peptonising power at the height of digestion in cases showing fairly normal total acid and free HCl varied after a test-breakfast from 44 to 78 per cent. (after Hammerschlag). The average was 74 per cent. After a test-dinner it ranged from 54 to 84 per cent., with an average of 75 per cent., while after a milk and flour soup the average was 72 per cent. A good general average is 60.70 per cent. Hence the various kinds of ingesta had no appreciable effect. Two healthy persons were examined every fifteen minutes after test-meals to see the changes in peptonizing power during the course of digestion. This showed that it rose in the early part of digestion, and fell in the latter part nearly in the same curve as the total acidity and free HCl. The presence of peptic action in a case of the author's corresponds with Oppler's statement that absence of peptic action is not a constant and pathognomic sign of cancer.

Physical Training of Children.

The March edition of Pediatrics discusses this subject. It says:

It is now becoming to be generally recognized that the physical training of a child is of equal importance to and in many instances of greater importance than mental training. Up to the last few years this necessary branch of education has been almost ignored, especially in the schools of the poorer classes, but it appears now that the people are awakening to the necessity of caring for the body as well as the mind. "A healthy mind in a healthy body" is surely as much to be desired in these days as when the words were written by the great Roman poet many hundred years ago. The ancients at least fully appreciated the value of these two most precious of human possessions, and their efforts to attain to a high standard of excellence in both were more thorough and judicious than those of the men and women of these times. The Greek, probably the most highly cultured race the world has ever known, in the gymnasiums paid as much attention to mental as to physical education. The Germans, of all the civilized nations of the present era, have followed most closely in the footsteps of the Greeks, and their educational system, allowing for the difference in time and ideas, is mainly modelled on that of old Greece; but even they, it is believed by many, lag behind Rome and Greece. In this country, in 1889, only twelve cities mostly in the west, had introduced gymnastics as a part of the course of a public school education. Since then physical training has been introduced into almost all the large cities of the east. The report of the director of physical training in the public schools of Washington, D. C., has lately been published, and the results appear to have been satisfactory, although‘ as the report says, "It is impossible to test the full measure of success or failure of our efforts. It is in the remote future with schooldays long past that the lasting influence of such work will be felt by the individual child. That the bodies of our children in school are better formed, better carried, and more gracefully used there is no doubt." That part of the report which refers to school medical inspection is particularly deserving of notice, and is in brief as follows: "I wish to assist in urging systematic daily medical inspection as a means of improving the physical condition of the child in school and reducing the possibility of contagion. It needs the critical eye of the medical expert to detect cases of nervous disorder, low nutrition and diseases in their incipient stages. At intervals of at least one year examinations should be made to discover imperfect vision or defective hearing." Many of the American cities have adopted this plan, and it would assuredly add to the well being of the children if their example were followed all over the country.

Infective Broncho-Pneumonia of Gastro-Intestinal Origin.

"Treatment" gives an account of a case of this character, reported by Dr. Pruvost. He relates a case of broncho-pneumonia in a little girl of six and a half years of age, which he believes to have been set up by the entrance into the lung of micro-organisms from the gastro-intestinal tract.

The child had been under treatment for a week with whooping cough, when, after eating two tinned sardines for lunch, she had severe vomiting, lasting through the night and through the greater part of the next day and following night. Fever, difficulty of breathing, and lumps of phlegm expectorated with the cough, showed the onset of broncho-pneumonia, which wes verified by auscultation. There was albuminuria. In a few days all the symptoms subsided, and the urine was free from albumen. Whooping, which had disappeared during the attack, recommenced. A few days later another attack of vomiting was followed by a similar train of symptoms as before, with a return of the signs of broncho-pneumonia.

Dr. Pruvost remarks that the case illustrates the effect which gastro-intestinal affections may have in determining maladies of the respiratory system. He notes that the bacillus coli has already been demonstrated in the lungs in broncho-pneumonia of children primarily affected with infective enteritis.

A propos to the tinned sardines having been the probable cause of the gastro-intestinal irritation in this case, Dr. Pruvost expresses his dissent from the general belief that such accidents can only be produced by articles of food of bad quality badly preserved, or by the lead from the solder of the tins.

Even foods reputed sound may produce gastro-intestinal symptoms if the functional power of the digestive organs is insufficient to produce their digestion in a reasonable time. Preserved foods, amongst others, are likely to be difficult of digestion; and their slow or imperfect digestion results in a soil for the elaboration of toxines.

A Case of Spontaneous Rupture of the Uterus during the First Stage of Labor.

Dr. H. W. Cook reports the following interesting case in the London Lancet, Feb. 26, 1898. His statements are these:

At 5 a. m., on November 28th, 1897, I was sent for to attend a woman, aged 33 years, in her fourth confinement. Her previous confinements had all been rapid and normal, all the children except one being alive and healthy. She was curetted for endometritis twelve months before the present occasion and became pregnant soon after the operation. I had casually seen the patient several times during her pregnancy, which advanced in a perfectly normal manner, the only point worthy of notice being that she was of a very highly neurotic temperament. On examining the abdomen as far as I could make out the presentation was normal; there was no unusual distension, the child's movements could be plainly felt, and I heard the fœtal heart sounds below and slightly to the left of the umbilicus. Per vaginam I found a capacious, roomy pelvis; the os was dilated only to about the size of a shilling, the head presenting normally, and the membranes unruptured. The pains, which had only lasted a couple of hours, were moderately strong and regular. As the case was evidently in an early stage I left the patient, returning about 7:50, a. m., when I found that the pains had become much more severe and the os had now dilated to the size of a half crown, the head being engaged in the pelvic brim. I remained with her, intending shortly to rupture the membranes, and to allow her to sit about the room a little. About twenty minutes after, during a severe pain, she suddenly became very faint and pallid, so much so that she almost dropped on the floor, where I let her lie for a few minutes. According to her own statement the pain was so severe as to make her feel faint. Her pulse, previously normal, was rapid and soft, beating at about 120 to the minute; she vomited some milk and water which she had taken shortly before. I administered a hypodermic injection of brandy, after which she stood up and with the assistance of the nurse and myself got on the bed, complaining then of only slight pain in the abdomen. Her petticoat was wet with fluid and there was some blood coming from the vagina, though not in great quantity; the fluid was evidently liquor amnii. I immediately proceeded to examine her per vaginam and found at once that something unusual had taken place. The head had completely vanished; indeed, from the interior I could feel absolutely no part of the child; where the os and cervix should have been I could feel a raw ragged surface which at first felt to me exactly like placental tissue and I thought at first that I must have, in some unaccountable way in my first two examinations, missed a diagnosis of placenta prævia, especially as she was now losing some blood. I then turned my attention to the abdomen and at first sight saw that I had a case of ruptured uterus with the child floating free in the abdominal cavity. The abdomen was irregularly elongated transversely and in the right umbilical and lumbar regions I could plainly feel a foot, through the abdominal wall, and on the opposite side was an eminence which I made out to be a shoulder. On feeling again per vaginam (inserting my hand) I could now clearly distinguish the state of affairs; there was an extensive rent extending upwards from the upper extremity of the vagina up the posterior wall of the uterus reaching almost to the fundus: what I had at first taken to be placenta was the edge of the rent and the posterior surface of the posterior wall of the uterus which had evidently become somewhat inverted: through the rent I could feel the intestines but no part of the child or of the placenta. The examination caused the patient great pain and I could go no further without an anæsthetic. Being alone, with the exception of an untrained woman as nurse, I deemed it advisable to wait till I could get more assistance. The patient was almost pulseless and I preferred to wait and keep her going with stimulants, rather than to have her die under an anæsthetic without anyone else to help. I therefore sent a messenger on horseback to my nearest medical neighbor, Dr. W. H. Brown, of Colac, twelve miles distant. He arrived in two and a half hours and in the meantime I had rallied the patient and just succeeded in keeping her alive with brandy injected hypodermically and per rectum, salt solution injection, etc. Ether was now administered and the hand was inserted into the vagina through the rent posteriorly (the uterus was partially contracted) and into the abdominal cavity. After some trouble a foot was seized and drawn through into the uterus, the rest of the child following easily, with the exception of the head which somehow caught in the tear; after considerable difficulty it was pulled through and then delivered with ease, there being a large, well developed pelvis with absolutely no obstruction. There was slight prolapse of intestine which was returned easily. The child was dead. On tying the cord and dividing it the next thing was to find the placenta. This turned out a rather difficult matter, but after some search and by dint of following up the cord to its insertion, it was found high up, almost under the liver. The uterus and vagina were douched out with solution of iodide of mercury, two hypodermic injections of ergotine were administered into the buttock, and the uterus, including the rent, was firmly packed with iodoform gauze. We had to finish hurriedly, for the patient being all but dead we turned our attention to rallying her. She improved so far as to be able to talk to her friends with the help of such means as raising the lower end of the bed, stimulants, salt solution, compression of the abdominal aorta, etc. In the end, however, our efforts were unavailing, for she died six hours after the accident from pure shock. A post-mortem examination was not made.

I have deemed this case worthy of publication, owing to its rarity and to the absence of any apparent cause. This lesion, at any time uncommon, generally occurs only in the lower segment of the uterus, and I believe tears beyond the cervix are mostly transverse. In the present case, however, it was almost longitudinal, and reached without a doubt nearly to the fundus. As regards the cause, this, as I have stated, was quite unapparent. As far as we could ascertain there was no growth in the uterus, nor were there any sharp processes of bone growing from the pelvis likely to cause laceration; the pelvis being large and roomy, I fully expected a rapid delivery, and no ergot or other means had been used to produce excessive uterine contraction. The only way to account for the accident was the fact that the patient had suffered from endometritis and the uterine wall must have been affected as a result. The symptoms were well marked and unmistakeable almost immediately after the occurrence.

Regarding the treatment, the woman was so much collapsed that abdominal section was out of the question; she would certainly have died in the middle of it; besides, her surroundings were very unfavorable for such an operation. We were fortunately able to deliver her, though with much difficulty, *per vias naturales.*

Bits of Medical Folk-Lore.

Dr. G. W. Morehouse, in the Boston Medical and Surgical Journal, has collected the following rather interesting items:

A child was born to a Russian Jew, and upon the delivery of the after-birth a neighbor of the same race wished to have it. After much questioning the externe learned that she had heard that (1) to eat a placenta is a sure cure for sterility and proposed to make an experiment in therapeutics.

2. Often in pregnancy the woman is very well while the husband looks very wretched. "No," said the Irish mother of a large family, "I never feel better in my life than when I am in a family-way, for my old man, you know, he takes all my sickness." In a higher grade of society two women were gossiping. Said one, "Have you noticed Mr. So-and-so, how miserable he looks this summer?" "Yes," said the other, "don't you know the reason? Why, his wife is pregnant."

3. If a pregnant woman stirs boiling soap it will not "come" (Md.).

4. If when a woman is pregnant she touch a piece of meat it will spoil within an hour. It is said that butchers of the Isle of Jersey will not allow women to handle their meat for fear of loss from this cause.

5. Pregnant women must avoid the smell of paint, else they'll miscarry (Mass.).

6. A mole on the left breast is a sign of easy child-birth (Nova Scotia).

7. If a pregnant woman steps on a tangled rope or string, the child will have the cord around its neck (Russian Jew).

8. If a woman in labor puts her hands above her head, it is said she thus interferes with the descent of the child (Russian Jew).

9. By an examination of the placenta held in the hand it is possible to tell how many children the woman is to have (Russian Jew). An attempt to secure further information on this interesting subject elicited only the reply, that "the doctor always knows," the rebuke being doubtless unintentional.

10. White streaks in the cord show the number of babies (Russian Jew).

11. If the mother has a good deal of heartburn during her pregnancy the infant will have a good deal of hair on its head (Nova Scotia).

12. A "longing," the abnormal craving of a pregnant woman for some special article of diet, should be gratified, otherwise the child will be marked by a picture of the desired food (common in England and America).

13. Should a pregnant woman be hit by any object thrown at her the baby will have a birth-mark on a corresponding spot (Russian Jew). The authority for this item told of the regret expressed by a neighbor who had accidentally hit her with some article of wearing apparel while sorting clothes for the wash.

14. If anything occurs during pregnancy to startle the mother, and so, according to popular belief, to "mark" the child, the mark may be transferred from visible parts, for example, the face, to invisible, for example, the leg, by the mother quickly rubbing that part of her own anatomy to which she wants the mark transferred and wishing it there (Ireland).

15. The first four months of pregnancy are those of greatest danger to the child (Russian Jew).

16. During the first four months of pregnancy a woman who sees any animal may give birth to that animal, that is, to a monster. To avoid so unpleasant an accident she should gaze steadily at it until she becomes tired of looking, and all will be well (Russian Jew).

"A woman before her child is born must not look hard at any animal, for the child may be like it," says the American Indian, and illustrates by examples.

17. If a mother during pregnancy is startled by a hare crossing her path, the child is liable to have a hare-lip (Ireland.)

18. If a pregnant woman passes an enemy, and he knows of her pregnancy, he may cause cleft-palate or hare-lip in the child by splitting a piece of wood or chopping in a doorway with an axe (Russian Jew).

19. A pregnant woman helped her husband butcher his hogs, and when her child was born it had a pig's head (Mass.).

20. The placenta should be burned and not buried, for the greater safety of the woman in her convalescence (Irish).

21. A placenta should be buried not burned; it is bad for the woman to have it burned (Russian Jew).

22. An Irish woman living near Boston Harbor asked that the placenta be thrown into the water, so that the child might never meet his death by drowning.

23. Do not comb a parturient patient's

hair while she is in bed for fear of child-bed fever (Nova Scotia and New England).

24. A parturient patient drank the urine of her son, probably as a diuretic, a fact to the truth of which a physician bears testimony. This occurred in New Hampshire,

25. Cow-dung, fresh as possible, has been plastered on an inflamed breast, commonly known as "bealed breast," within twenty-five years in Cape Breton.

26. The belief that the possessor of a caul will not meet his death by drowning is probably known to all.

27. A child born with a caul is born to see sights and wonders (Nova Scotia).

28. When a child is born with a veil (caul) it should be removed downward, for if it be removed from below upward the eyes will be opened to foresee death, sickness and other ills (N. Y.).

29. If a baby grips hard with its hands it is not silly (Nova Scotia).

30. If a baby can sneeze it is not an idiot (Nova Scotia).

31. If a pregnant woman kicks a cat the baby will have milk in its breasts, that is, mastitis (Russian Jew). The Irish call this witch's milk.

32. If a baby has jaundice some object of gold should be used about its dress and it will recover (Italian).

33. Tie a new coin in the baby's belly-band and the cord will drop off clean (Italian).

34. It is a common belief that a wet-nurse may transmit her disposition or features to the bantling (New England).

35. An unsatisfied craving, a "longing," which, as we have seen before, may give the child a birth-mark, will cause it to have through life the habit of running his tongue out (Ireland).

36. To wash the face with a diaper on which a new-born babe has urinated will prevent or cure freckles (U. S. and Canada).

37. Urine is used as a cure for chapped hands (New England and Canada).

38. Boys urinate on their legs before going in swimming to prevent cramps (common in U. S.).

39. Human urine has been used in bronchial affections (New Brunswick).

40. The patient's own urine was administered in Staffordshire, Eng., for gravel.

41. Within recent years a woman in Enland has been given her own urine after a severe illness to prevent "fits."

42. Menstrual napkins should not be burned.

43. For scanty menstrual flow let a young woman drink menstrual blood of a woman who flows freely, mixed with urine of a man (Pa.).

44. "Rabbit tea" (made of rabbit dung dried and steeped) is given for interrupted menstruation. Patient is not to know the nature of the remedy (Utah).

45. To cure warts on a man rub them with menstrual blood (Italian).

46. If a woman take salt fish from the keg during menstruation the remaining fish will soon spoil (N. Y.).

47. There seems to be a popular belief in a climacteric for men. It manifests itself in nervous and other disturbances, and is supposed to occur at the time of the corresponding change in his wife's life. It does not imply in his case a loss of the power of procreation.

48. Water standing in the depression of cow-dung was formerly recommended as a certain cure for pulmonary consumption (N. Y.).

49. The sheep-dung tea cure for measles is said to be extensively used in New England.

50. A physician in Indiana reports that goose-manure is supposed by some in his vicinity to cure pimples on the face.

51. A poultice of fresh, warm cow-dung is used for rheumatism (N. Y.).

52. Oil tried from the penis of a hog and applied to the loins of a child suffering from weakness of the kidneys or bladder cures the disease (Nova Scotia).

53. To remove tumors from the eyes (eyelids) rub about the lids with the hands of a corpse (N. B.).

54. It is not well to sleep with the hands above the head, for by so doing one draws the bloods to the head (Russian Jew).

Periods of Infection.

The period of infectiousness of contagious diseases is considered to be: Smallpox, six weeks from the commencement of the disease, if every scab has fallen off. Chicken-pox, three weeks from the commencement of the disease, if every scab has fallen off. Scarlet fever, six weeks from the commencement of the disease, if the peeling has ceased and there is no sore nose. Diphtheria, from six weeks from the commencement of the disease, if sore throat and other signs of the disease have disappeared. Measles, three weeks from the commencement of the disease, if all rash and cough have ceased. Mumps, three weeks from the commencement of the disease, if all swelling has subsided. Typhus, four weeks from the commencement of the disease, if strength is re-established. Typhoid, six weeks from the commencement of the disease, if strength is re-established. Whooping-cough, six weeks from the commencement of the disease, if all cough has ceased.

Unjustifiable Pelvic Operations.

It was held some time ago by Wharton Sinkler, of Philadelphia, says the Medical Council, that the removal of healthy ovaries for the cure of nervous affections was unjustifiable, and Dr. Lusk, of New York, was inclined to consider it malpractice. Somewhat recently two Italian physicians, Drs. Angelucci and Pieroccini, of the Provincial Asylum of Macerata addressed letters to prominent alienists in various countries, most of them in charge of asylums and clinics, resulting in the tabulations of one hundred and fifteen cases subjected to a pretended operation, and one hundred and nine actually operated upon. Their studies forced them to the sensible conclusion that the removal of normal intra-pelvic organs for the cure of general nervous affections was wholly unjustifiable, and that hysteria in itself is actually a contraindication for the performance of a serious gynecologic operation. They suggest, further, that in hysteric conditions not remedial by other means, a simulated operation may be beneficial. The pathologic condition of the uterus and its adnexa should be the only indication for their removal, and that all the benefits that may accrue to nervous or insane women from the removal of any part of their generative organs is merely due to suggestion, and this is equally effective in simulated procedures.

The salient weakness of the specialist is that he is prone to see with but one eye and to a single purpose. When the wound has healed and the patient is dismissed alive, the operation has been a success, however much in the near future she may justly wish that it had terminated less favorably for the operating surgeon's personal statistics. It really did not require the painstaking clerical work of these two Italian physicians to tell us what nearly every general practitioner has for some time been positively assured of. But their work amounts to demonstration, and to that extent it is valuable for the effect it will have upon those in the active competition for numerical effects. It is to be hoped that all those who need the bringing home of the lessons of this investigation will see and digest them, and act accordingly.

Health Resorts and Water for the Anemic.

Dr. Hermann Weber (The Practitioner) sums up an interesting paper as follows:

1. The majority of cases can be treated without either spas or special climates, although the latter can be rendered useful in most instances.

2. Anemic patients are often in so great a state of weakness that no journey, either to spas or climatic resorts, ought to be attempted, but a preparatory treatment ought to precede the change.

3. In many cases the attention to climate is more important than to mineral waters, because the medical agents contained in the latter can be supplied pharmaceutically. In all cases in the selection of spas special attention should be paid to the question of climate.

4. Many anemic patients do equally well at the seaside and on mountains; but, as a rule, more torpid cases are better influenced by the seaside; more excitable, better by sheltered mountain resorts, in medium, not in the highest elevations. Cases with considerable dilatation of the heart ought not to be sent either to level seasides or to highly elevated places, but to mountain resorts below three thousand feet above sea-level.

5. The influence of change is so great that anemics residing or having fallen ill at the seaside ought to be removed to the mountains, and *vice versa*.

6. In the selection of mineral water the causes of the anemia and the complications must always be carefully considered. Chalybeate springs are certainly not always the proper means of treatment.

7. Proper arrangement of diet and exact rules as to exercise are of the greatest importance, as well in the climatic as in the spa treatment of the anemic.

8. The mental condition requires the most careful attention. A moderate degree of agreeable occupation and of enjoyment is usually essential; hence it is necessary to consider not merely the questions of good accommodation and food, but also the society likely to be met with at the place selected, the beauty of the surroundings, the music and everything which can occupy the mind in an agreeable way.

The Board of Health in New York City.

For some time past the majority of medical men in New York City have felt dissatisfied with many of the methods employed by the Board of Health. The fact is not denied that much good has been effected and that on the whole the sanitary condition of the city has been greatly improved within the past four years, mainly owing to the strict enforcement of the useful regulations of the board; on the other hand, it is considered that some of its regulations are not only useless but troublesome and even mischievous and that it has been granted by the legislature powers altogether too autocractic. For example, the late board took a stand on the question of the contagiousness of tuberculosis wholly at variance with the views of the greater part of the physicians of the city. Under its regime and under the regulations still existing it is made the duty of medical practitioners to report to the Board of Health every case of tuberculosis met with just as they would a case of small-pox, and further, another regulation requires every physician under penalty to report to the board the name of any other physician whom he has reason to believe has a patient under his care suffering from some tuberculous trouble, thus virtually making every medical man a spy upon the other. Again, the board not only manufactures antitoxin and vaccine virus, but sells it at cost price or below not only to the inhabitants of New York but to outsiders. Against these regulations a most emphatic protest was entered some time ago by the members of the New York County Medical Society (including among their numbers most of the profession in New York) on the grounds that the regulations in reference to tuberculosis were unnecessary and humiliating, while those relating to the sale of antitoxin and vaccine virus were objected to on the broad grounds that a municipality should not enter into businéss competition with its citizens. The classification of tuberculosis was characterised by a member of the County Medical Society as a step backward and a return to methods which were abandoned after a long trial in Europe more than a century ago. The medical profession of New York, therefore, have deemed it expedient to endeavor to curtail somewhat the arbitrary powers of the Board of Health and to have the obnoxious regulations abolished and to that end a Bill has been framed and presented to the legislature. It is explained that the Bill does not attack the board itself or wish to impair its demonstrated usefulness, but is simply aimed against the methods in which it has sometimes exercised its immense powers. It is not intended to prevent the preparation or use of vaccine by the department, but does propose to prevent its sale. It also restricts in a measure the preparation of antitoxins and withdraws the board's right to sell them. The sections of the charter relating to the Board of Health do not define the diseases that shall be considered contagious or pestilential; this has hitherto been left to the discretion of the board. In the Bill now before the legislature these diseases are specifically named.

The Adjourned Discussion on Blistering.

At the meeting of the Paris Academy of Medicine held on Feb. 8th M. Ferrand gave an account of the work by which he had tried to reintroduce blisters. (Lancet, Feb. 19, 1898.) That which we have to guard against is not the use of blistering but its abuse. The indications for blisters are very plain in certain morbid conditions where simple rubefacients are insufficient. Blistering must on no account be used so as to cause a wound of the skin by which certain infectious germs may enter, but a blister properly applied produces all its effects without any wound and very simple aseptic measures are sufficient to protect the place if by any chance the epithelium is broken. The pain caused by a blister can be easily alleviated and the general depression which accompanies its use very soon disappears. The vascular alterations produced by cantharides are not necessarily dangerous of themselves, but, in fact, they are of great use in the treatment of certain diseases. As for the renal affections which sometimes result from the absorption of cantharides, even if they do occur and increase from a simple catarrh to nephritis extending to the vessels and glomeruli, it is easy to avoid this accident by limiting the duration of the application, by using small blisters and not applying them too often. Cantharides sometimes has a useful action upon the kidney; in certain forms of nephritis it is valuable and it is allowed by everyone at the present time that if cantharides ought to be prescribed in some cases of interstitial nephritis it can also be given with advantage in the parenchymatous variety. The incations for a blister vary according to the site, the kind, and the type of the disease. They are of great use in typical forms of catarrh of the serous and mucous membranes. In conclusion, M. Ferrand pointed out that blisters exercise a good effect upon nutrition and he agreed with M. Robins's opinion that they produce a real hyperleucocytosis. Vesication also has a good effect in the spasmodic vomiting of certain convulsive affections. M. Huchard gave the meeting a short historical account of vesication. It was invented some 2000 years ago by Asclepiades of Bithynia, but since his time it has been greatly abused. Defective asepticism was responsible for a great number of the accidents following this method of treatment. He reminded the Academy of the case of a child, eleven years of age, whom Dr. Duquet had seen, who had been blistered 110 times for pleurisy. As a result the patient died from empyema and nephritis. It was especially in the country that this sort of abuse flourished and practitioners ought to make themselves thoroughly acquainted with the risk to which they were exposing their patients by the use of cantharides without special precautions.

A Case of Intra- and Extra-Uterine Pregnancy at Term.

Dr. Hubert A. Royster (Boston Medical and Surgical Journal) reports an interesting case in a colored woman, thirty-four years old, who was delivered at full term of a living child. The midwife reported that she "felt another child, but it would not come." On examination a living full-term fetus was felt in the abdominal cavity outside the uterus. Operation was at once advised, but was refused until the end of four weeks, when the fetus was dead and the mother was evidently on the road to death from sepsis. A dead, fully developed female fetus, weighing four and a half pounds, was removed by laparotomy. The placenta weighed two pounds, was adherent to the anterior abdominal wall, and to the left side of the pelvic brim. The patient made a good recovery.

A history of rupture allowing the escape of the fetus into the abdominal cavity was obtained from the patient. While squatting on the ground to urinate at about the end of the second month, she was seized with a sudden sharp pain in the right side which caused her to call for help. She fell in a half-fainting way, was carried into the house, put to bed, and in a few hours recovered. There was no external loss of blood.

Removal of Stone from the Left Ureter.

At the Clinical Society of London, February 11th, 1898, H. Betham Robinson described a case of Hydronephrosis from Stone in the Left Ureter in which he successfully performed retro-peritoneal uresero-lithotomy. (Local, February 18, 1898.) The patient was a girl, sixteen years of age, who was admitted into St. Thomas' Hospital on August 7th, 1897, under the care of his colleague, Dr. Hector Mackenzie. She had had symptoms of renal colic for ten years, but during the last two years the attacks had become frequent, with an almost regular periodicity of six weeks, and were attended with hæmaturia. During the intervals she was perfectly free from pain. On vaginal examination a hard body, presumably a calculus, could be detected in the course of the left ureter just posterior to where it had relation with the vagina. On August 19th an incision of five and a half inches was made from just above the internal ring upwards and outwards but with a slight curve inwards of its upper end. The abdominal wall was divided to the sub-peritoneal tissue and the peritoneum was carefully displaced off the iliac vessels and from the upper part of the pelvic wall. The ureter was thus exposed, much dilated, and it was bared to the spot where it entered the wall of Douglas's pouch. A one-inch incision was made in the length of and on the outer aspect of the ureter and there was a great gash of smoky urine. When this had been drained away and the wound was swabbed out the right index finger was passed in and a stone was felt, which was then extracted with forceps. It was composed of oxalate of lime, and it measured five-eighths of an inch in length and three-eighths of an inch in diamiter. Its weight was 25 grains. After cleansing the wound the ureter was stitched up with fine silk and the wound united layer by layer. A gauze drain was left in the lower angle passing down to the neighborhood of the wound in the ureter. The girl made an uninterrupted recovery without any rise of temperature or other bad signs. The whole wound was soundly healed at the end of a fortnight. All the fullness in the kidney region had disappeared and she felt no pain at all. This case was almost the exact counterpart of one published by the same operator which was equally successful. In both of them this operation was preferred to Cabot's operation (vaginal uretero-lithotomy), which some might have attempted.

Cerebral Pressure.

In a pamphlet on the above subject Professor Adamkiewicz has argued, contrary to the views of Professor von Bergmann and other investigators, that living nerve substance may be compressed without injury to its function and that the normal tension of the cerebro-spinal fluid can never surpass physiological limits. At least, a pressure acting on the surface of the living brain does not contract the capillary vessels but causes their dilatation, The source of the cerebro-spinal fluid is the arterial blood and the source of its pressure must be the pressure in the capillary vessels where it is secreted. Nothing else than obstruction to the return of venous blood from the head and general congestion of the venous system can increase the tension of the cerebro-spinal fluid. The circulation in the veins controls the cerebro-spinal fluid and there is a free communication between the cavities containing the fluid and the venous blood in the head. The injection of fluid into the cranial cavity could not increase the pressure in the veins in the neck, even if it had to do with thin-walled veins, for such veins are compressed and closed by external pressure and the result would be that the pressure in the veins of the neck would fall. But if the increased pressure of the injection was to increase the pressure of blood in the veins of the head the emissory veins which are not closed by any external pressure would suffice to carry off the extra blood. Indeed, it is possible to inject the cranial bones from the subdural space by means of a colored liquid. The venous flow in the veins of the bone has a suction action during inspiration on the fluid in the lymphatic spaces surrounding it. Merely increasing pressure in the cerebro-spinal fluid cannot have any general effect on the cerebral pressure.

The Treatment of Hemorrhoids.

Dr. Coston of Fayetteville, Tenn., favors the clamp and cautery method in the treatment of this disease. He says:

1. In the operation with the ligature you tie up the most sensitive of all nerve ends, and there is intense pain, which wlll be kept up until the stump sloughs and the ligature comes off. In the cautery operation the nerve end is simply cut away and cauterized, and there is nothing left for it to do but cicatrize, and it is left in the very best possible condition for this.

2. The ligature may slip off and secondary hemorrhage occur; after the clamp and cautery operation there is no danger of secondary hemorrhage. If hemorrhage occur, it occurs immediately, and the operator can only blame himself for it.

3. There is no danger of a recurrence. Kelsey, of New York, and Smith, of London, who have a large experience with this operation, support me in this statement. It will be admitted that recurrences do follow the ligature operation.

4. Convalescence is much more quickly completed, for the reason that it begins at once under the eschar produced by the cautery, and would be completed by the time the ligature comes away should the two operations be used on separate tumors in the same case.

5. The mortality following the clamp and cautery operation is practically *nil*.

6. The clamp and cautery operation requires less after-care from the operation.

7. There are no unpleasant sequelæ.

Medical Politics at Mobile.

We predicted all this discord several months ago when this Quarantine Convention was called. We feel confident that the main object of this was to increase the facilities for checking contagious diseases, so prevalent in the Southern Gulf States. While we entertain this view, nearly all the leading Medical Journals of the country look at the matter in an entirely different light. The leading editorial in the Medical News for February 26 has the following:

We had not given any credence to charges made in certain papers that the quarantine convention intended to be composed of delegates from the South Atlantic and Gulf States, which met in Mobile on February 9th, 10th and 11th, was, as specifically charged by them, a "packed" convention conceived by persons inimical to a national quarantine, and incidentally opposed to the development of the Marine Hospital Service. The fair appearance of the call, the equable division of representation among the Southern States, and the high character of some of the gentlemen named as its leading spirits, seemed to forbid such a conclusion; but the reports which we have at hand from this meeting indicate that the elaborate program laid out by its astute managers to discuss the varied features of maritime and interstate quarantine and sanitation in general was nothing more or less than a Barmecide feast.

The ingenuous gentleman who went to the convention under the impression that he would hear scientific papers and discussions on the diagnosis of yellow fever, the sanitation of cars, baggage and freight in times of epidemic, the disinfection of houses and other similar topics of vital interest, soon found that while the politics of the managers of the convention necessitated this masquerade to attract attendance, the real interest of its promoters was to secure an endorsement of the so-called American Medical Association bill to establish a Department of Public Health and to denounce the Caffery bill which has been drawn in the interest of Federal quarantine. We learn that the Executive Committee, a self-appointed body, selected a permanent Chairman for the convention without giving the members the privilege of voting on the presiding officer, and that this same Chairman named a Committee on Resolutions, who were to formulate the sentiments of the convention upon the all-important point of national or State supremacy in quarantine matters.

Although this convention was to be composed of delegates from the South Atlantic and Gulf States, it was soon discovered that Illinois was represented by the editor of the Journal of the American Medical Association, and Wisconsin by the Chairman of the Committee of the American Medical Association, by which was formulated the bill designed to obliterate the Marine Hospital Service in national health matters. Delegates were also present from New York, Maryland and Kentucky, and these gentlemen and the delegates from these three States were accorded equal privileges on the floor, and were appointed members of the Committee on Resolutions, a body of thirteen members, of which these constituted almost one-half. The rest was easy, and although the managers did not secure an endorsement of their bill, neither did it secure a denunciation of the Caffery bill, as there was a large minority, who, in their disappointment at the outcome of the convention, did not propose to be led further into a game which had become manifest at the close of the third day. One day of scientific discussion and two days of wire-pulling had opened their eyes to the meaning of the convention, What the convention resolved—a sort of endorsement of national quarantine, with a reference to the reserved rights of States—is highly unimportant even if it was unanimously passed. In fact, the New Orleans Times-Democrat, in its issue of February 12th, says editorially "unless Congress can do better for the South Atlantic and Gulf States than the convention proposes that it shall do," referring to these resolutions, "their liability to invasions of foreign disease will not be materially lessened."

Latent and Ephemeral Pericardial Effusion.

At a recent meeting of the Clinical Society of London Dr. S. Wm. Ewart read a paper on Latent and Ephemeral Pericardial Effusion. He said that in clinical literature these effusions had received little notice, and he pointed out that even large effusions are often overlooked. Walshe alone seemed to have made direct reference to their occurrence and pointed to their frequency in Bright's disease and rheumatic fever. The three instances brought before the society occurred in the course of cardiac and renal affections, and it was significant of the relative frequency of this condition that these cases happened to be under observation simultaneously. The same coincidence had occurred with three cases reported in The Lancet of November 21st, 1896, which illustrated the common causation of the effusion from rheumatism, valvular disease and albuminuria. The conclusions arrived at related (1) to the hitherto apparently unsuspected frequency of these minor effusions; (2) to their short duration; (3) to their moderate size; (4) to the absence of the painful symptoms of pericarditis and of the severe pressure symptoms of large effusions; (5) to the obscurity of their pathological etiology; (6) to the desirability of their being recognized, since by that means the earlier stages of more dangerous effusions, from which they are undistinguishable by mere percussion, would not so often escape detection as seemed to have been the case in the past. Notes of two recent cases were added. In one the patient was nineteen years of age and was admitted on January 24th, 1898, for cough and right pleuritic pain with coarse friction at the right anterior base but no evidence of pleuritic fluid. The characteristic signs, both anterior and dorsal, of pericardial effusion were under observation for two days. As shown by tracings they had entirely disappeared on the third day (January 26th). No pericardial friction was heard at any time. The pleuritic pain had existed for seven days prior to his admission but it was impossible to say how soon it may have been followed by pericardial effusion. The other patient was admitted on January 20th, 1898, with acute rheumatic arthritis. On examining his chest the next day well-marked signs of moderate pericardial effusion were recognized. There was no pericardial friction but great tenderness was localised with subsequently slight swelling over the right fourth and fifth chondro-sternal junctions. The arthritic pain and swelling were rapidly relieved by treatment and no cardiac murmur was heard—the heart sounds being distant. The signs of effusion were less extensive on the second day. On the third day the precordial area of dullness was normal and the "dorsal dull patch" was replaced by normal resonance, although the patient still maintained the dorsal decubitus of acute rheumatism.

Spurious Abortion.

T. W. Eden (British Medical Journal) defines this as a "development within the uterus, in the absence of uterine or extra-uterine gestation, of a membrane having the essential characters of the decidua of pregnancy and accompanied by the signs of early pregnancy, and its separation and expulsion from the uterus with hemorrhage, thus simulating an abortion."

The diagnosis depends on, first, the exclusion of uterine pregnancy by careful microscopic examination of the cast, which demonstrates the absence of chorionic tissues, and, secondly, the exclusion of extra-uterine pregnancy.

The writer considers two possible explanations of this mimicry of early pregnancy terminating in abortion: (1) That an ovum was actually fertilized, but perished at a very early period without leaving traces of its presence, while the "genetic reaction" in the uterus and in the general organism progressed as in developing pregnancy. (2) That some stimulus other than the presence of a fertilized ovum in the genital tract may lead to the formation within the uterus of a complete decidua, and may hold the menstrual functions in abeyance. The latter view he hesitates to accept at present, but it is a fact that the discharge of a decidual cast must no longer be regarded as a pathognomonic sign of extra-uterine pregnancy. The writer reports at length three cases of this affection.

Epilepsy.

Andriezen (British Med. Journal) has recently made most important researches on the pathology of epileptic idiocy and imbecility in the child. He finds two lesions—(*a*) A diffuse sclerosis or overgrowth of the neuroglia fibre cells in the brain substance; (*b*) a coextensive change in the nerve cells—of two kinds, positive and negative. The negative changes consist in a defective development (fewness and slenderness) of protoplasmic processes, whilst the positive changes consist of an increase in the amount and diffusion of pigment throughout the cell body, especially its basal part. Later changes were a gradual destruction and atrophy of the cell-processes, consequent upon or coextensive with the further overgrowth of the glia cells. This double process may affect predominantly this or that area of the brain, frequently in territories corresponding to a particular vascular distribution.

In cases of epilepsy supervening in adutl life, after the brain cells have attained complete development, the changes found in the nerve cells were only of the positive kind above, with frequently, in addition, intranuclear vacuolation of the cortical cells.

The significance of these changes is the more striking on comparing them with those found in the brains of simple, non-epileptic idiots and imbeciles; for in the latter class of cases the brain convolutions are plump and well formed, though simple in arrangement, and on microscopic examination it is seen that the changes in the nerve cells are only of a negative kind, *i. e.*, the cells are plump and embryonic-looking, with few protoplasmic processes, whilst there is no evidence of overgrowth of the neuroglia, or of destruction of the processes of the nerve cells.

Cremation in Austria.

About a year ago the Vienna Medical Society appointed a committee to consider the question of the introduction of cremation into Austria, Professor Hofmann and Professor Gruber being the reporters. (Lancet Feb. 19, 1898.) At the last meeting of the society Professor Hofmann's report was read by Professor Mauthner. It was to the effect that inhumation is attended by a great many disadvantages and that cremation is to be preferred on hygienic grounds. Decomposition may, however, be accelerated by avoiding metal coffins and by not making the graves too deep. In selecting places for burial grounds the nature of the soil should be taken into consideration. With respect to the æsthetic aspect of the subject Professor Hofmann believed that there was a disagreeable episode at the onset of a cremation when the skin gave way and the fat became strongly heated. Cremation has the advantage of preventing misapplications of dead bodies or portions of them, such as the superstitious use of the fat for making ointments or the turning of the bones to commercial account. Proceeding to the medico-legal side of the question Professor Hofmann said that exhumation by order of a magistrate is of infrequent occurrence and takes places only when poisoning is suspected; he denied that poisons are undiscoverable after a short time and he stated that he had succeeded in recognising cyanide of potassium four months after the death in a body which was very much decomposed. He believed that it would be impossible to make cremation compulsory, but he approved of its being made optional when there was no doubt as to the cause of death or when a pathological or chemical examination of the body had been made. Professor Gruber, the second reporter, said that the treatment of bodies in a crematorium is quite unobjectionable. He refuted the bacteriological arguments which have been advanced against burial by proving that a great many infectious germs perish quickly after bodies have been interred. Professor Mauthner proposed the following resolution, which was unanimously adopted: "There are no objectionable features in the cremation of bodies in a modern crematorium, but inhumation is not attended with such advantages that cremation is to be regarded as a necessary hygienic reform. Compulsory cremation would present many difficulties and would, moreover, be inadvisable for medico-legal reasons, but there can be no reason for opposing optional cremation after a careful examination of the body."

A Study of the Difficulties of Defecation in Infants.

Thos. Chas. Martin, M. D., read at the forty-eighth annual meeting of the American Medical Association, June 4, 1897, a paper with this title. He said:

It is generally recognized as a fact that infants and young children strain at stool.

The infant and young child strain violently at expulsion of semi-solid fæces because of the imperfect development of the anatomic features concerned in the mechanism of defecation. These are:

1. The infant's lower gut is muscularly déficient.
2. Its mobility within the abdomen is obstructive to defecation.
3. The rectal valves are obstructive.
4. The infant's anus not being sufficiently expansible, is, also, obstructive to defecation.

Records of *post mortem* observations were read and specimens of recta exhibited which proved that:

1. The muscular development of the adult rectum and lower sigmoid is plainly apparent and that a deficient muscularity is observable in the infant specimens. In the infant gut the intrinsic power of peristalsis is not present in that degree necessary to it as a competent expulsory factor.
2. The meso-peritoneum of these parts in the adult is, relatively, very considerably shorter than that in the infant. The adult gut is slightly tortuous; that of the infant is much angulated. Mobility and angulation of the infant gut conspire to obstruct the passage of formed fæces.
3. The rectal valve appears to bear the same proportion to the gut in both adult and infant but when the difference in muscular development in the two is noticed the disproportionate great resistence of the valve in the infant rectum becomes an obvious fact.
4. The anal expansibility is adequate in the adult but because of the greatly contracted boney pelvic outlet it is deficient in the infant and constitutes an obstinate obstruction to the passage of the semi-solid fæces.

Co-relative to these facts it must be recognized that the adult rectum has resident within its own wall a powerful expulsive muscular mechanism; that in the adult the shortening of the mesentery holds the upper rectum steady under the applied auxiliary forces; that in the adult the flextures of the sigmoid are not necessarily obstructive though in a desirable measure retardative; that in the adult the incline of the lower sacrum and coccyx behind and the development of the uterus and prostrate and their inherent support in front, provide the lower adult rectum with a firm funnel-like arrangement which guides the fæces directly upon the os internum of the anus; that the rectal valves may divide the fæces into portions to facilitate their separate successive discharge, and finally in sequence, that the physiologic descent of the entire pelvic floor reduces this last possible resistence to the minimum in adult defecation.

Infantile straining, the ruptures and prolapses, constipation, retention of fæces and the multitudinous consequent ills demanded study, and this investigation forces the conclusion that the individual's escape is ultimately assured by process of development, but, that for normally formed infant, the physician will find the solution of the problem of difficult defecation in the solution of the stool.

Colitis in the Adult.

Dr. T. J. Lynn (British Medical Journal) recommends the following treatment:

For severe cases, milk diet and rest in bed; for the milder cases, abstention from fruits and vegetables, a considerable amount of milk daily, and the less exercise the better. Even mild excitement, such as going to church, ought to be avoided; Sunday morning is invariably found to be the worst in the week with these patietns.

With regard to drugs, purgation seems unreasonable, and is certainly very unsatisfactory; even those cases in which one is led to suspect an accumulation of feces high up do not gain much benefit from purgation, and the fact of retention ought to give rise to a serious suspicion that cancer or some narrowing of the gut exists even if there be little pain and no sign of such a complication. The smallest purge has had bad effects in all the cases seen by the author which were uncomplicated. Even a single slice of apple or a small quantity of any raw fruit generally causes most distressing diarhœa, which is frequently prolonged.

The drug most relied on is dilute sulphuric acid; ten minims three or four times a day, with a very little opium and a carminative, generally controls the diarrhœa quickly. When this good effect is produced the drug ought to be continued as required, a loose morning motion being followed by a dose, should diarrhœa again come on, the mixture should be regularly taken, but never should the first dose be taken before the first motion: the distension then caused is most distressing. If sulphuric acid fails, large doses of catechu, or bismuth and salol, may be tried, and these failing, ten grains sodium bicarbonate, with dill water, act as a sedative if nothing else.

In certain cases in which the descending colon is attacked, the passage of a long tube and injection of a strong solution of nitrate of silver (ʒ ss-ʒ one, to one pint distilled water warmed) is an admirable remedy; it should be administered with caution but frequently results in absolute and immediate cure, the after colic being but a minor evil easily combated.

Opium is merely of service during the early stages, or after diarrhœa has been checked. In some cases strychnine acts as a good tonic, but the early administration requires caution.

The Obligation of the Physician and the Layman to Each Other.

The President of the Medical Society of the State of New York selected the above subject for his anniversary address. He said in part:

There is a general tendency affecting all grades of people toward that which will create a sensation, and the advancement of science having disturbed very materially our old creeds, we have been disposed to accept those which seem newer and which possess a larger amount of the marvellous. The old-time doctor is passing away, and, in his place we have the up-to-date medical man who, having imbibed his share of the spirit of the times, is losing in many respects more than he gains.

There is an unidentified something in the make-up of the medical man which you do not find in any other class of citizen. I speak of that jealousy which exists as between himself and his brother practitioner, and which makes him give free medical attendance to a patient who is not able to pay the fee demanded by him, but who is able to pay a smaller fee to his less successful brother. I doubt very much if any legal act could be devised to meet the emergencies presenting themselves to us in this question; but if the medical profession would, as a body, respect the rights and privileges of each and every individual member of their august body, and would see to it that no act of theirs should tend to jeopardize the interest of another, then would come the solution of this entire difficulty without the intervention of the law.

I am not a believer in reducing the practice of medicine to the status of a trade; I do not believe that the profession should organize itself into a trades-union for the furtherance of the interests of its members professionally, politically and financially; but I do believe that there should be that honesty and respect of other's rights which should make men know the justice or injustice which has been dispensed to their predecessors before serving in the capacity of successors. My special point is that if we do not sustain honorable members in their expectation of just and courteous treatment, we injure and degrade the profession itself.

It belongs to this Society to take the initiative in the correction of abuses where discovered and in the introduction of real improvements.

With the hope that I have convinced you of the honesty of our purpose and that we are working for the good of the community and of the State at large, let me beg of you to go out from this hall determined to use all the influence at your command for the furtherance of honest medical charty and the destruction of quackery in all its phases.

Serous Effusion into the Pleura.

Dr. Vest at a recent meeting of the clinical Society of London read a paper on a case of Serous Effusion into the Pleura, of fifteen month's standing, treated by Incision. (Lancet, Feb. 1898) The patient was a man 39 years of age, who had had the right side of his chest full of fluid for twelve months when he came under observation. There was a strong family history of phthisis, and the man was probably phthisical himself. In the course of the next few weeks the chest was tapped three times, on the last two occasions with the removal of eighty and forty-seven ounces respectively. As the fluid re-accumulated on each occasion it was decided to lay the side open, and this was done three months after the patient first came under observation—that is to say, fifteen months from the commencement of his illness. A large quantity of fluid was evacuated but no rib was excised. The patient was greatly improved, the temperature, however, rose a little and at the end of a week the discharge became purulent. The lung completely expanded and in the course of a week was in close contact with the ribs everywhere, with the exception of the track in which the tube lay, and very shortly the amount of discharge did not exceed more than two or three ounces in the twenty-four hours. The patient got rapidly well and gained flesh and strength, but it was not possible to leave the tube out; a track extended a long way down, nearly to the spine. The discharge from the cavity was about two ounces daily which was found to contain tubercle bacilli. Reference was made to another case of serous effusion which had lasted for eighteen months, and was also treated by incision. It was recorded in the Transactions of the Medical Society of London about two years ago. This patient also got perfectly well and has remained well up to the present time, more than four years from the commencement of her illness. Excision of the ribs should not be practiced as a routine part of the operation but only done when necessary for efficient drainage. Dr. West added that about two years ago he had recorded the case of a woman, 31 years of age, who had had an effusion into the pleura on the right side for a period of more than twelve months. He performed repeated paracentesis, and when this failed to cure it he had the side opened and the case treated like one of empyema. The patient ultimately recovered completely and was left without any deformity of the chest.

X Rays.*

On February 8, 1897, made an attempt to locate the lower border of the stomach by having a patient swallow iron tablets and viewing the body by means of a fluoroscope. Although the tablets could be plainly seen when held in the closed hand, or in the mouth, the thickness of the tissues rendered the test a failure, so far as the stomach was concerned. On March 13, 1897, through the courtesy of Prof. Van Woert, of Brooklyn, the same test was made with the aid of a static machine estimated to have a voltage of 150,000. This was also a failure. Radiography was then tried, the subject lying for twelve minutes over a sensitive plate, the Crooke tube being immediately over the stomach. On development nothing was found except a small circle supposed to correspond to a cent used to locate the umbilicus. Fluoroscopic tests were also made in June, 1897, with the automatic Crooke tubes and were also failures. July 1, 1897, through the kindness of Dr. Dittweiler, more successful experiments were made with fluoroscopes in conjunction with X rays generated by a static machine in simple but improved Crooke tubes. A young woman suffering with gastric dilatation and anadenia, swallowed two capsules, containing respectively, iron tablets and bismuth subcarbonate in powder. Both appeared absolutely black when held in the closed hand, the irregularities of the former being visible. The patient stood so that the normal line to the platinum plate of the Crooke tube was horizontal and on a level with the lower border of the stomach, as marked by a wire nail strapped to the skin. The rays, however, were passed somewhat obliquely from left to right, so as to avoid the spinal column. With the fluoroscope, the nail was easily seen. After a few moments, a shadow was seen at one end of the nail; it then disappeared and, in a moment, reappeared at the end nearer the pylorus. The same phenomenon was also noted by two other physicians present, who concurred in the belief that the shadow represented the capsules, moved by a peristaltic wave along the lower wall of the stomach. Similar experiments were made with ten other persons, most of them patients with gastric dilatation of moderate degree, of non-cancerous origin. About half of the experiments, made with rather fleshy persons, were complete failures. In two or three instances, it was thought that the capsules could be seen momentarily but the result was not of positive value. In two thin patients the results were positive. In one of the latter patients, a young man with cured dilatation of the second degree, the capsule was seen for a moment and, after several minutes, the whole gastric contour was plainly seen as a dark shadow, coresponding exactly to the area as previously determined and marked. This is explained as due to the melting of the capsule and distribution of the bismuth. Fluoroscopes impregnated with calcium tungstate and with barium platino-cyanid seemed equally efficient. The peristaltic movement of the capsules explains the failure of radiography, and the future of fluoroscopic examinations of the stomach seems assured, if we can have more powerful radiant tubes.

The Diagnosis and Treatment of Chronic Gastric Catarrh.

Dr. Hurdoch in the New York Medical Journal has an article of value with this title: The following is a part of the paper:

Among the symptoms mentioned were coated tongue, loss of appetite, distress in stomach, bloating and belching, nausea and vomiting, vertigo, palpitation of the heart, constipation, insomnia, headache, loss of energy, and diminution in weight.

Chemical examination of the stomach contents after a test meal is an important measure, but unless more than one examination is made it may prove misleading.

In diagnosticating chronic gastric catarrh the following must be excluded, the gastric neuroses, ulcer, cancer, and atrophy of the gastric glands. In regard to atrophy of the glands, a constant absence of rennet and the rennet zymogen forces one to diagnose this pathological change.

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*Abstract from article by Dr. A. L. Benedict, of Buffalo, in Medicine for February, 1898.

As regards treatment, the patient should be advised to sleep in a well-ventilated room; keep regular hours; meals at stated intervals; eat slowly; masticate food thoroughly; drink nothing with meals; bathe frequently; regular, open-air exercise, and a daily morning evacuation. Diet must be selected for each individual case; avoidance of proteids if hydrochloric acid is absent; milk if rennet is absent, substituting kumyss and buttermilk, in absence or diminution of the saliva; hydrochloric acid if none is being secreted. Lavage, if there is much mucus, should be employed,

Eczema in Children.

Duenges describes a form of eczema which may materially interfere with the health of the child; namely, that form which usually appears on the bottom and posterior aspect of the thighs of infants. Its origin can generally be traced to irritation from the urine and feces. These children cry a great deal, sleep proportionately little, and, besides, there is danger of ulcers and abscesses forming on the diseased parts, with their accompanying ill effects on the health, and even more serious consequences may result. As these cases often resist all kinds of treatment with ointments and baths, the author recommends one which has given him the most rapid and excellent results. The child must at first be given a bath at about 90 degrees. It is of importance to dry the child after the bath without friction of the diseased parts, by the simple pressure of a soft towel, or absorbent cotton. Following the bath, any kind of babies' powder is dusted on the eruption, and then it is to be covered with gutta percha sheeting, which must be kept well in place by the diaper, or, if necessary, by a roller bandage. Frequently the moist eczema is already converted into the dry, scaly form on the second day of treatment.

The Influence of the Menopause on the Kidney.

Le Gendre has studied the renal manifestations which occur, especially in women of a neuro-arthritic diathesis, at the menopause. When the menstrual flow is delayed, diminished, or suppressed, the kidneys may become congested; this is particularly marked in cases with a floating kidney, which then becomes swoollen, painful, and less easily displaced. The following symptoms may depend on the renal congestion, diminution in the urinary excretion, slight albuminuria or temporary hæmaturia, lumbar pains, nausea, and intense headache. They may, however, be relieved by bleeding or by the application of leeches to the lumbar region or os uteri, and by milk diet and theobromine. If the patient is the subject of chronic renal disease, the symptoms may become very acute at the period if the menstrual flow be suppressed. In the case of a woman, aged 49, with high tension pulse and polyuria, three attacks occurred each at a menstrual period; in the first there was transitory hemiplegia and partial coma, with albuminuria and vomiting, which were relieved when the delayed menstrual flow appeared. A second attack disappeared after bleeding, but the third attack was fatal from uræmia and convulsions.

A Pre-Antitoxin Mortality of 40 Per Cent. Reduced to 3.6 Per Cent.

Prior to the introduction of Anti-Diphtheritic Serum, the mortality from diphtheria at the Harper Hospital, Detroit, averaged for a number of years 40 per cent. According to the 34th annual report of the Hospital authorities, as published in the February number of the Harper Hospital Bulletin, page 73, 141 cases were treated at the Hospital during 1897, with the following results:

	Cases.	Deaths.
Ordinary dipththeria........	115	1
Laryngeal diphtheria......	26	6
	141	7
Excluding two cases moribund admission................	2	2
	139	5
Mortality under antitoxin treatment................		3.6 per cent.

The antitoxin employed exclusively in Harper Hospital during 1897 was the Anti-Diphtheria Serum of Parke, Davis & Co's, Biological Department, and the remarkable reduction displayed in the death-rate reflects the highest credit on the efficacy of this matchless product.

Mental Depression.

Dr. J. M. Taylor points out a very serious omission in our study of climatology. (London Lancet.) He says that there is a strong belief prevalent among the profession and the laity alike that climate exerts a marked influence for good or ill upon persons suffering from the brain fag, nerve tire, and melancholia. Unfortunately, the writing of climatologic experts has hitherto been directed almost exclusively to the needs of sufferers from pulmonary, asthmatic, rheumatic, or other ailments. He says that there are large numbers of patients suffering from mental depression and the effects of excesses of various sorts who refuse systematic medical treatment, but are quite willing to try a "change of climate," which they often prescribe for themselves. For this class of patients he regards environment and suitable companionship as of more importance than the climate itself; while many advantages can be claimed for radical geographical changes, escape from a cold winter being one of the most conspicuous and popular ones. The warmth and sunlight of some tropical regions afford opportunity for outing which cannot be gainsaid, but it is a question whether the reversal of the season is valuable for those lacking in vascular and nervous tone, for whom cold under suitable precautions is an invaluable tonic. In his paper the author does not offer guides in the selection of a climate, as he recognises that the data for such are not yet available, but he earnestly suggests that those having experience with the subject will contribute, so that the subject of climatology in the treatment of nervous affections may be put upon a firm basis.

Influence of the Nervous System in Skin Diseases.

Dr. James M. Winfield (Medical and Surgical Bulletin) in an address before the Medical Department of Syracuse University, stated that perhaps the most frequent neuro-cutaneous disturbance which the general practitioner is called upon to treat is simple acute facial erythema of the menopause, the so-called hot flashes. This is undoubtedly caused by some disturbance in the sympathetic system producing a sudden filling of the cutaneous capillaries; the inhibitory nerves to the papillæ being taken off their guard, this phenomenon results. If this erythema continues for any length of time it will be observed that the skin has grown thicker, and that small red lines have appeared about the nose and over the molar eminences. These are enlarged capillaries. Finally, small papules and pustules will be seen, and the condition is then known as acne rosacea. The counterpart of this climacteric disease is simple acne, which occurs about the time of puberty. In girls, at the beginning of menstrual life, there are frequently a number of peculiar reflex nervous phenomena, which have more or less effect on the cutaneous circulation, and this is often sufficient to cause the appearance of acne.

Another neurotic skin disease is urticaria (hives or nettle-rash). No age or sex is exempt, although it is more common in females and children. The causes are so numerous that for the convenience of study they should be classified—first, into direct or local irritation of the skin, and, second, into indirect or reflected irritation. Under the first head are placed bites of insects, as fleas, mosquitoes, etc. The bite of a single insect will often produce enough irritation to cause an outbreak of urticarial wheals in the regions of the skin far remote from the original bite. The irritation is conveyed along the sensory nerves, causing reflex urticaria. Indirect irritation acts chiefly through the alimentary canal, usually the stomach or upper intestinal tract, the irritation being applied to the gustatory nerves and reflected on the skin. Shellfish, strawberries and many other articles of diet are capable of producing in some people severe attacks of this disease. Medicines, such as quinine, copaiba, morphine, etc., also have a similar power. Disorders of the pelvic organs are frequently accompanied by urticaria. Urticaria is also seen in diseases of the nervous system, as locomotor ataxia. The disease primarily is usually this: A spasmodic contraction is followed by a paralytic dilatation of the vessels and stasis of the capillary circulation; exudation ensues, producing acute edema, which lifts up the epiderm into a wheal.

The influence of a deranged nervous system is seen in that common and protean disease, eczema. The eczematous patient is never in good health; he complains of being out of sorts, and there is a condition of nerve-exhaustion, be it from worry or over-work, either of mind or body. Irritation of the alimentary canal or genital tract acting reflexly on the nerve-centers, and thus producing capillary dilatation, will provoke an attack of eczema. Eczema has been known to occur as a sequel to neuralgia of certain nerves, and it is often associated with asthma.

The fact that direct disturbance or disease of the nerves may produce disease of the skin is proven by the occurrence of zoster. Kaposi, of Vienna, believes it is a nerve-toxemia. Dr. W. considers malaria an active cause. The malarial plasmodium acts in a similar manner to any other toxic substance, it clogs the blood-vessels and impoverishes the blood, and finally produces a form of neuritis. That zoster is a neurosis has been proved automatically by Baerensprung, Charcot, and many others. The lesions observed are an interstitial inflammation of the posterior ganglion and a neuritis of the trunks of the nerves arising from it to supply the diseased cutaneous area.

The author considers pruritus to be a functional defect in innervation, in which itching is the only direct symptom.

Pemphigus occurs very infrequently, especially in the United States. Its etiology is obscure, but all observers claim it to be of neurotic origin. It frequently accompanies various nervous diseases, such as posterior spinal sclerosis, degeneration of the peripheral nerves, chronic myelitis, and acute spinal meningitis.

Dermatitis herpetiformis and licheu planus are both rare diseases. in which the etiology is obscure. Both diseases may be caused by mental worry and overwork.

Raynaud's disease is a gangrene symmetrically distributed over the skin, generally affecting the fingers and toes. Its pathology is not clear, but the disease is now generally understood to be due to a spasm of the arterioles, though whether this spasmodic condition is of central or peripheral origin cannot be positively stated, Ravnaud considered it to be central.

Finally, Dr. W. states that leucodermia, or whitening of the skin, is generally considered to be of neurotic origin also.

The Parasites of Malarial Fever.

Thaye has studied this subject recently and the following are some of the facts that has been published : (Yale Med. Journal.)

The tertian parasite, in its earliest stages, is a small body lying within the red blood-corpuscle. It is possessed of active ameboid movements, but on account of its lack of color is observed with difficulty. However, it is readily detected by the practised eye, even in fresh unstained specimens. As the parasite grows it accumulates fine pigment granules which at the end of thirty-six hours have gathered together at one point, usually the center of the organism. The parasite next undergoes sporulation, and is separated into its central pigment clump and a surrounding mass of small, hyalin bodies, which are complete young parasites ready to attack fresh red blood-corpuscles. The life history of a parasite occupies forty-eight hours, and sporulation takes place in all the parasites at the same timé, thus producing the febrile paroxysm in the patient.

The quartan parasite, in its early stages, greatly resembles the tertian, though its ameboid movement is weaker. As it grows the pigment granules are larger and darker than those of the tertain, and are inclined to gather in the periphery. Sporulation proceeds along symmetric lines, the parasite dividing into from six to twelve regularly arranged radial leaflets. The cycle of development requires seventy-two hours.

In both tertian and quartan infections more than one group of parasites may be present in a patient, giving, in double tertian and triple quartan infections, a chill every day. In double quartan infections there will be a chill upon two successive days and none upon the third.

The estivo-autumnal parasite is associated with fever which is more or less irregular. This form is rarely found in the milder malarious districts. The parasite is a biconcave disc with a well-marked central depression, so that it may appear like a ring. It is smaller than the tertian and quartan parasites and materially differs from them in the fact that it is usually found in the circulation only in its earlier stages of development. The later stages of development may be observed in blood aspirated from the spleen. This procedure is not without danger and should be carried out with the strictest aseptic precautions. After a certain length of time, varying from five days to two weeks, there appear in the circulation crescentic bodies with sharp refractive outlines containing pigment. If these are closely watched filaments may sometimes be observed to burst out from the parent cell and sometimes to break away from it to rush off alone across the field of vision. In the estivo-autumnal parasite sporulation does not occur in groups and hence the irregularity of continuousness of the fever.

The existence of these three distinct types of parasites has been proved not only by clinical observation, but further by careful inoculation experiments. Fresh blood from an infected patient, if introduced under the skin of a healthy man will invariably reproduce the same type of fever. There are still many questions in connection with this subject which cannot be definitely answered. Why should the process of sporulation cause fever? This is presumably because some toxic substance is set free from the parasite itself. The significance of the flagella has also puzzled observers. Recently MacCallum observed the penetration of a free flagellum into one of the non-flaggelate parasites. This observation strongly supports the idea previously advanced that flagellation and fertilization are intimately associated processes. At any rate, the old idea that flagellation is a degenerative process seems absolutely untenable.

As to modes of infection, there are at present considered to be three, *viz.* : by air, water, and by the bites of insects, especially the mosquito. The last is at present most popular.

Treatment of Gonorrhœa.

Janet thinks irrigation the best method, and employs it during the earliest stages of the disease, in fact, as soon as the disease is established. (British Med. Journal.) He strongly condemns the practice of leaving the urethra alone during the early stage, and thinks such practice is the cause of most cases of chronic urethritis, and of most of the complications of gonorrhœa. He maintains that during the first few days the gonococci cause damage to the urethral mucous membrane, and also infect the organism with toxins. Janet states that during his five years' experience he has had no case of stricture or other complication when irrigation was begun in the first stage. As regards drugs Janet still considers permanganate of potassium the best, although in cases where this failed to act well he had good results with itrol and argonin; he has not yet tried Neisser's protargol. His abortive treatment consists in irrigation of the anterior urethra only (unless the second glass of urine is turbid, showing that the posterior urethra is affected,) twice a day with a lukewarm solution of permanganate, 1 in 2,000, from a height of 50 cm. above the penis. After three or four days the irrigations are done every eighteen hours, then every twenty-four hours, the solution being strengthened up to 1 in 1,000 by the eighth day. If the discharge is then mucous, and contains no gonococci, the irrigation is left off. If there is recurrence, or if the posterior urethra is affected from the first, complete irrigation of the whole urethra is practised, the anterior urethra being previously cocainised. The douche vessel is raised to 1 metre above the penis, and the patient told to attempt to micturate; the solution is then allowed to pass slowly into the bladder by regulating the pressure carefully. For these cases he starts with a 1 in 4,000 solution, which is afterwards gradually increased. If cases are not quickly cured by this method, extra-urethral accumulations of gonococci are present either in the prostate, the urethral glands, or crypts of the fossa navicularis. Such cases he treats by a kind of gentle massage of the prostate or urethra, as the case may be, to express all secretions containing the cocci, followed by irrigation. In cases of stricture complicated with gonorrhœa he uses the ordinary irrigation if the stricture is slight; if more severe, dilatation and irrigation combined at the same sitting. Cystitis, if due to simple irrigation, he treats by irrigation of the bladder with small quantities of premanganate; if the cystitis is infective he combines silver nitrate with the permanganate (1 in 4,000 of each), or else a 1 in 4,000 solution of itrol. If orchitis is present he suspends irrigation till the acute symptoms have passed off.

Secretion Neurosis of the Colon.

Dr. Bryan Robinson in Mathew's Journal of Rectal Diseases, concludes a paper of unusual merit, as follows:

1. The above disease of the colon should be termed secretion neurosis and enteritis. The first is of neurotic origin and course.

2. Both secretion neurosis and enteritis may co-exist.

3. Secretion neurosis of the colon occurs chiefly in neurotic females (80 per cent.)

4. It is closely associated with genital disease.

5. It is frequently preceded by constipation (a neurosis of the fecal reservoir or of the inferior mesenteric ganglion).

6. The continuation of the disease is partly due to an irritable, vicious habit of excessive epithelial activity.

7. The disease is characterized by colicky pains, with the evacuation of mucous masses.

8. It is not fatal, variable and erratic in attacks, with impossible prognosis as to time.

9. Macroscopically the evacuations appear as membranous, yellowish white masses of mucus.

10. Microscopically one sees hyalin bodies, cylindrical epithelium, cholesterin crystals, triple phosphates, round cells, various kinds of micro-organisms and pigment,

11. Chemically the evacuations consist of mucin and albuminous substance.

12. Secretion neurosis of the colon is comparable to the secretion neurosis of the endometrium (membranous dysmenorrhea) or bronchial croup.

13. Secretion neurosis of the colon appears to be limited chiefly to the part of the colen supplied by the inferior mesenteric ganglion, i. e., to the fecal reservoir (the left half of the transverse colon, the descending colon, the signoid and rectum).

14. It is a disease of the sympathetic secretory nerves, and is analogous to disease of the motor and sensory nerves of the viscera.

15. Its treatment consists in removing the neurosis, which lies in the front ground, and regulating the secretion, which lies in the background.

16. Three views exist as to the above disease, which certainly embrace more than one pathologic process, viz.:

(*a*) That the disease is enteritis (catarrh).

(*b*) That it is simply excessive secretion of mucus (colica mucosa).

(*c*) That it is a secretion neurosis of the colon (nervous).

Gonorrhœa.

The Hospital, in collecting the literature on this subject, says:

The effects of the gonococcus appear to be due to a toxin produced by the organism which is active after the destruction of the microbe. This explains gonorrhœal inflammations in the absence of living gonococci. A culture with dead cocci is active, but the filtrate appears to be without effect. Epithelium and endothelium are the habitats of the gonococcus, the constitution effects being toxic. With regard to bilateral epididymitis it appears that sterility follows in about one-third of the cases.

Gonorrhœa in the female is now known to affect chiefly the urethra, and next in order the cervix uteri. The naked eye appearance is no criterion to the disease, as the diplococci are often present in a perfectly clear fluid. D'Aulnay holds that the local effects are due to the action of the gonococcus on the mucous membrane, but that the constitutional effects are usually due to the toxin produced. The blood, kidneys, nervous system, skin, and joints are chiefly affected; but the micro-organisms themselves sometimes pass into the tissues, leading to local and metastatic suppurations when combined with other organisms. The gonococcus is now recognised as one of the causes of endocarditis. A husband with gonorrhœa infected the wife, who soon died of vegetative endocarditis, and in the vegetations the gonococcus was found.

A Curious Stone in the Bladder.

At a meeting of the Berlin Medical Society, held June 16, 1897, Dr. Mankiewicz demonstrated a curious stone, which he removed by high section from a man's bladder. (American Medico-Surgical Bulletin.) The stone weighed 10 drams, was 2 inches long, 1¾ inches broad, and 1 inch thick, was heart-shaped, and right through the center of it ran a piece of rubber catheter, the lumen of which was also filled with a stony mass.

The history of the case is as follows: The patient, 39 years old, suffering with rador urinæ, consulted a physlcian about a year ago, who introduced a Nelaton catheter for purposes of diagnosis. On withdrawing, half of the catheter remained in the urethra. As all attempts to remove it failed, it being finally pushed into the bladder, he was sent to a hospital, where the Boutonniere operation was performed and several pieces of catheter removed; but not all, as six or seven months after he passed a small piece of catheter, with incrustation of salts on it. From that time his troubles began, the urine became turbid, purulent, and offensive. The diagnosis of stone was made by the rectum, by the sound, and by the cystoscope; through the latter one could plainly see the red piece of rubber on the white stone. The man being a hypospadiac, large lithotrites could not be introduced, and high section was decided upon. Recovery uneventful. The author concludes with the warning not to trust to the reputation of the manufacturing firm, but to try each catheter and instrument thoroughly before introducing.

Treatment of Tuberculosis.

V. Ziemssen discusses this subject with a considerable degree of interest. He draws attention to the following points (British Medical Journal): (1) the specific, and (2) the climatic dietetic treatment. His results with the new tuberculin have been unsatisfactory, although Koch's directions were strictly adhered to. Occasionally the author has observed an increase of weight, diminution of expectoration and fever, while tuberculin was being used, but the same has been known to occur under other conditions. In local tuberculosis of the skin, bones and joints, perhaps the results of the tuberculin treatment may be different. For instance, the author has recently seen a case of lupus under Posselt's care in which tuberculin had brought about a cure. V. Ziemssen says that he has no expectations either from the tuberculin treatment or that by Maragliano's serum. The condition of the lungs is far too complicated to admit of a direct action of the tuberculin upon the pathogenic microbe. The lung cannot be protected from the streptococcus and staphylococcus infections. The value of the open air treatment of phthisis is universally admitted. The advantages of high altitudes lie (1) in the air being purer and freer from gases and bacteria; (2) in the greater amount of ozone present; (3) in the diminished pressure; (4) in the rays of the sun being warmer, and the air drier, and fog rarer; and (5) in the increase of the red cells induced. The increase in the hæmoglobin does not depend on the high altitude. The hardening of the body against atmospheric agencies by the outdoor life and hydrotherapy as well as the increased appetite can be brought about elsewhere. The disadvantages of high altitudes consist in the variation in wind, rain and snow, which may make acclimatization difficult. There is also difficulty in the journey. The treatment in the majority of cases has to be carried out at home. Some well-known sanatoria show that phthisis can be as well treated in ordinary as in high altitudes. The author lays much stress on the formation of such sanatoria for all classes of the community; in them really lies the future of a more efficient treatment of phthisis.

Headache.

Hingston Fox, according to The Hospital, says that during childhood the chief causes of headache are school pressure and the rheumatic poison. The former class is especially common in children attending the public elementary schools; such children are subjected to mental stimulation under bad physical conditions. When the rheumatic tendency is present the proneness to headache is much greater. The best remedies for such headaches are rest and cod-liver oil.

In adolescence and young adult life many kinds of headaches are prevalent. Firstly, the rheumatic headache, and one closely associated with it, due to over-action of the heart. In these cases alkalis, salicylates and iodides are the remedies indicated. In headache due to anæmia and constipation, purgatives, especially saline purgatives, and iron in the anæmic ones, generally effect a cure.

In migraine—meaning for this a periodical nerve storm of well-known definite type—a most valuable guide to preventative treatment is the state of the arterial tension; if this is high, cannabis indica probably does more good than any other drug. The freshly-made extract should be used, and the initial dose should not be more than a quarter of a grain, which should be cautiously increased. If, on the other hand, the blood tension is low cannabis indica only aggravates the attacks.

In cases of headache in younger adult life, where the arterial tension is lowered, the heart's action is quickened. Full development of this condition is seen in Graves's disease, but all degrees of the condition in a slighter form are very common. The headache is generally relieved by quiet and recumbency. Caffein quells some of these headaches, and iodide and bromides relieve others.

In the well-marked type of headache, which may be termed congestive, the head is flushed and hot, the carotids pulsate visibly, whilst the hands and feet are cold. The headache often begins on rising in the morning, and is worse after exertion and meals. The blood tension, contrary to what might be expected, is somewhat diminished. This form of headache is very well relieved by caffein.

Arterial tension is apt to rise during the middle period of life. The causes of this in the well-to-do classes are over-eating, alcohol, sedentary habits, and the gouty constitution. In the poorer classes, another set of conditions, scanty food, long hours of work, insufficient food, bring about premature old age of the vessels with resulting virtual tension. In the gouty, mercurial purgatives, salines and iodides act well.

The Importance of a General Knowledge of Bacteriology.

There are 331 described species of bacteria which are useful, or at least harmless, and only 158 species which are known to produce disease, and comparatively few of these affect the human family (Sternberg Medical News). And, moreover, since the conditions for existence of the disease-producing germs are not abundantly supplied, they have, on the whole, a rather hard life-struggle, and it is not wonderful that when the opportunity presents they improve it to the utmost.

It is the harmful germ with which we are most concerned. The useful germ we accept, like air and sunlight, as a matter of course. The harmful germs, after evading every effort to discover them for centuries, are rapidly being isolated, studied, and the influences which are inimical to their continued existence established. It was found that certain diseases, of which typhus is a type, depended for their propagation on the presence of filth. Measures were taken to remove the filth, and typhus disappeared. It is known that typhoid fever, malaria, cholera, and certain diarrheal affections are produced by the presence of germs in drinking water, and that if such water is boiled these diseases will be prevented. It is known that the sputum of a tuberculous patient, when allowed to dry, may infect others, and that if the sputum is burned the major danger is avoided. It is known that air-borne diseases are, as a rule, carried but a short distance, and that if the patient suffering from them be isolated, and if all discharges and articles of clothing, etc., with which the patient has been in contact are disinfected, the danger of others contracting the disease is comparatively slight. It is known that certain diseases are prevented or modified by vaccination or inoculation ·

that this acquired immunity is produced by a well-understood scientific principle, which is being repeatedly proven. It is known that for pus-microbes, as well as others, there is nothing so condusive to their growth as heat and moisture, and that an old-fashioned poultice supplies these conditions most admirably, and that in the discarding of this dangerous agent for the treatment of open wounds, whether infected or not, and in purulent affections generally, much suffering and perhaps some lives have been saved.

These precepts are thoroughly practical, and even a superficial knowledge of the principles of bacteriology will convince the public of their importance, and the necessity of better measures of quarantine; of the enactment and enforcement of laws in regard to isolation and vaccination; of disinfection; of general sanitary cleanliness, including pure food, pure milk, pure water supply, and pure air; matters in which every individual is vitally interested. The more thoroughly bacteria and their effects are understood, the less we will hear of the scoffer, the anti-vaccination crank, and the mob which resists the health officer in the performance of his duty.

The public is beginning to see that the present practice of medicine is founded on science, and it is anxious to know more of it. It is remarkable what an interest people are taking in this scientific basis of medicine. Whether due to the training in science and physiology now common in our public schools or to some other reason would be difficult to decide, but certain it is that there is a wholesome desire for information which the physician should be the last to withhold. He may communicate the fact to his patients that it is unwise to poultice a boil; that it is necessary to disinfect polluted clothing and diarrheal discharges; that it is desirable to boil suspicious water, etc. Let him also explain to them why these things should be done, and in the majority of cases he will find his audience only too glad to listen and prompt to obey.

Gout and Joint Disease.

The cases in which gout appears in connection with joints may, from a clinical point of view, be conveniently divided into three classes: (1) the acute attack of regular gout; (2) chronic gout, possibly a sequel of an acute attack with much deposit of urates in a solid or semi-liquid state; (3) pains referred to the joints of a more or less fugitive character, or tenderness felt chiefly on use, which later may, if excessive, be followed by increase of pain and even some redness and swelling, or an attack of the first variety. In the second case, with more deformity, there is much less pain and tenderness, though along with these redness and superficial swelling may from time to time be super-added, with an increase of deposit within the joint. In addition to these conclusions, Sir Willoughby Wade ("British Medical Journal") says that in an attack of gout which has affected the metatarso-phalangeal articulation of the toe, lines of tenderness can be detected running from the joint across the dorsal and plantar aspects of the foot in the line of the nerve supplying the joint. This nerve affection sometimes has the character of a neuritis and at other times that of neuralgia, and may, therefore, be described as a neurosis. The lesion may arise from injury or from the presence of some toxic agent in the blood. A neurosis is the primary and essential element. If a sensory nerve is attacked we get pain and tenderness; if a vasomotor nerve, we get redness and swelling; if the nutritive nerve of a joint, we get changes in the joint, one result of which may be a deposit of urates. It may be asked how one toxin (uric acid) affects now an external, now an internal sensory nerve; now a motor; now a vasomotor; now a tropic nerve and again an excretory one. This condition causes us to hesitate before we declare positively that gout is dependent upon uric acid as a cause.

Tamponment in Post-partum Hemorrhage.

Dr. Marx in an article entitled "Practical Measures in Obstetrical Management," has this to say in regard to post-partum hemorrhage: (New York Med. Journal.) Qick, precise action is required. No time is to be lost recalling theoretical measures. Means that have stood the test of time must be used, and used at once, to bring on firm and good uterine contractions. I have thrown aside, he says, everything but one or two measures. I employ but one *hot intra-uterine douche*, and if this procedure does not bring about the desired result I do not resort to irrelevant and dangerous measures, such as direct compression, ice, persulphate of iron, lemon, vinegar, etc., *ad infinitum*, but proceed to pack the uterus with gauze, toweling, or anything I have at hand. I never go to a case without five yards of gauze being on hand. This is a surgical means of controlling hemorrahge.

The technique of gauze tamponment is simple: one hand over the uterus, while with the other the gauze is shoved in, until no more can be introduced. So long as the gauze remains, bleeding cannot occur. The packing can be safely removed at the end of twenty-four hours, and renewed if necessary.

Mental Impression as a Therapeutic Agent.

Dr. John P. Stuart, in a paper read before the Tri-State Medical Society at Nashville, Tenn., Oct. 12, 1897, (Medico-Surg. Bulletin) says:

Hitherto our good, honest, scientific, and uncompromising doctor has pooh-poohed every complaint, every tale of woe, or story of suffering poured into his unsympathetic ear, which failed to show sufficient cause for disease; and the timid neurotic has sought and found a place to carry his woes and dollars, in the legion of quacks that wait without the walls of legitimate medicine, ready to devour just such blind eager victims. And so it behooves us not to stand idle all day while the harvest is waiting. Let none go by, that seek our help. And if it takes flowers instead of bitter herbs, attar of roses instead of asafœtida, it should not only be our duty, but our pleasure, to give them red hot, ice cold, sugar-coated, gilt-edged, and soft-soaped, to that degree that will give satisfaction to the mind, taste, and fancy of our patient. This will make them comfortable and grateful, and will render them more useful, if not ornamental.

Psychiatry has long been a deep study with scientific men. From the days of Plato, Socrates, Aristotle, Hippocrates and Galen, on down, such poor afflicted mortals have been a phenomenon to the profession.

They have been possessed of gods, devils, demons, witches, and what not, from age to age, until now the peculiar vagaries, whims, and idiosyncrasies of the many thousand diseased minds that teem the pages of scientific history and psychology, are puzzling mysteries, and baffle all laws in nosology, classification, or system.

We have some psychic manifestations that fill the soul of the spiritualist with felicity. There is no rule to guide the neuropath. Each individual case must be studied out and treated according to its own peculiarities. Yet there is one thing to be remembered: these morbid conditions must not be classed with the imbecile, demented, or insane. Their minds are bright—sometimes remarkably so; their ideas fine, their conversation intelligent, and often entertaining; they have a lucid idea of the cosmology of things, and an appreciation of their natural eternal fitness. Such a mind can be but little affected. Yet upon one thing the cog slips and the loose screw goes rattle-a-tap, till you wonder, as you gaze into the face of your whining patients, if they are crazy or unconditional fools. Here is where we must have patience with our patients, smile our sweetest, and listen with great interest and deep concern to their long winded and tiresome tales of woe. Look wise and say much, using all the medical terms that can be agglomerated into verbose and long drawn sentences. Have a deep and learned name for every ache and pain, and prescribe some anodynal placebo, until you have time to study your case. Get the history of the parents, brothers, sisters, etc, and learn all the surrounding circumstances, habits, etc., if it takes months. When master of the situation, you can, by using little medicine and lots of "svangelism" effect a permanent cure. A strong mind is good medicine for a weak mind; some people love witchery, mystery and myth; they feed on it with as much gusto as a hungry wolf on the dead carcass of a tender lamb. Give them all they want; do not let them go away dissatisfied; if you do, they will hunt a cure in some other doctor's office.

Fair Criticism and Common Sense.

The following appears in the editorial columns of the Medical News, March 12, 1898. We make the clipping because the News' position on the matter is wise, conservative, and forcibly maintained. The editor says:

There is no danger of any misunderstanding among the readers of the Medical News as to its position upon the question of the contagiousness of pulmonary tuberculosis and the importance of placing that disease among those requiring hygienic control. Nor can the strained, artificial efforts of the Philadelphia Medical Journal avail to place the Medical News in a false light upon this subject. The readers of the former Journal, as well as those of the Medical News, like fair play and honest criticism, and when a contemporary sneaks in at the back door, snatches a sentence from its legitimate connections in a book review, and se s it up as the complete embodiment of editorial creed upon a grave pathologic and hygienic question, some other motive is apt to be ascribed to the act than an honest seeking after truth or the promotion of ordinary ethics. The motive is not far to seek, and the method is not such as becomes honorable criticism.

The medical profession that has read or that may read the quoted sentence as used by the reviewer in discussing the excellencies of Dr. Meig's volume on the "Origin of Disease" (Medical News, Feb. 26, 1898, p. 287) will not consider itself besmirched by epithets or saddled with false motives. A little common sense is all that is necessary to keep the judgment clear on those points, and he errs grievously who denies the medical profession its share of that commodity—as our contemporary apparently does.

Hemorrhagic Endometritis.

Dr. J. A. Shaw Mackenzie read a paper on this subject before the British Gynecological Society, Dec. 9, 1897. (Lancet.) He pointed out the difficulty of differential diagnosis between chronic inflammatory conditions of the endometrium and commencing adeno-carcinoma. He showed two uteri with microscopic sections removed for intractable hemorrhage at the menopause. Both patients were now in good health. He exhibited a third uterus removed for the same cause. In this case the patient had died after the operation, from exhaustion. Microscopic sections were alike in each of the three cases. Hemorrhagic endometritis, the author considered, was, clinically, bleeding from the uterus, from various enumerated general and local causes, while the microscopic appearances of the endometrium were those of chronic inflammation of various degrees. Menorrhagia in many cases was due to gonorrhea and unsuspected syphilis usually associated with ovarian and tubal disease.

Intubation in Diphtheria.

Dr. W. K. Simpson, at a recent meeting of the New York Academy of Medicine, read a paper on this subject (Medical Record).

He said that one of the great advantages of intubation, and one which placed it in sharp contrast with tracheotomy, was its simplicity and its freedom from the horrors of the latter operation. It was for this reason that intubation had been so promptly resorted to, and it probably explained in part the brilliant results attained. It had now been proved that 60 per cent. of laryngeal cases in the course of diphtheria did not require intubation if reliable antitoxin was administered early. If, however, croup did supervene, the antitoxin should be continued and the croupy symptoms watched, it being remembered that it took twenty-four hours for the full effect of antitoxin to become manifest. While the antitoxin effect was being awaited, if stenosis became marked intubation should be performed. Before the introduction of antitoxin the tube usually remained in six or seven days, but the average time with antitoxin was about three or four days. Personally, he preferred to leave the tube in a maximum of five days in private practice, when the physician was not always at hand to re-introduce it, should it be found that it had been extracted too early. Undoubtedly in many cases the tube could be removed earlier without the necessity for a reintroduction. The chief indications for its removal before this time were severe discomfort and pain from pressure, severe attacks of coughing and sudden stenosis, due to membrane blocking up the tube. This last accident might occur earlier in antitoxin cases, because of the tendency for the membrane to exfoliate earlier.

Chronic Constipation.

One of the most difficult conditions to treat is that of chronic constipation. The objection to massage of the abdomen and electricity is that they are expensive and require much more time than many patients can give to them. Drugs are usually too powerful, and, once their action is exhausted, are apt to leave the patient more constipated than before. Dr. Vladimir de Holstein claims that a satisfactory result may be obtained by administering creasote. This drug should be given pure, and not, as usually is done, in alcoholic solutions or in pills. Seven or eight drops should be given twice daily, after a meal, in a glass of water or any other liquid. If the dose is found not to act, it should be increased. Inasmuch as the patient may complain at first of the burning caused by the creasote, it is often well to begin by a smaller dose—say one drop daily—increasing daily by one drop until the desired result is obtained. Not only is constipation done away with, but the appetite increases and the general condition is improved.

This treatment should be continued for several months. Dr. Vladimir de Holstein thinks that creasote does not act as a purgative, but neutralizes some intestinal toxin which causes paresis of the intesinal tube.

The Mental Side of the Sense of Hearing.

The Laryngoscope draws attention to the great difference which exists between the capacity of different individuals for appreciating the various qualities of sound as shown by the tests applied to telephone operators. It has been found that quantitative tests alone are illusory since the inability of the operator to detect the quality of sound is often the cause of delay and confusion. The difference between two operators may in fact be essentially a psychological one, for although the acuteness of each may be equal the mental processes of one operator may be infinitely more rapid and accurate than those of the other. A simple tesc some applied is as follows: The superintendent has his own telephone connected simultaneously with those of a number of operators, and calls out, at shorter or longer intervals between each, a written series of numbers, without repetition. These the operators record on paper and the lists are then compared with the original. This is a criterion which clearly tests the various faculties involved. Unfortunately it would seem to complicate the personal factor of the individual with that of the instrument engaged.

Tuberculous Poultry as Food.

The British Medical Journal, March 5, 1898, publishes a communication with comments regarding the probable cause of tuberculosis from poultry as a food. The following is a part of the report: The cook, says the correspondent, when she came to dress the Christmas turkey, thought the liver "looked bad" and put it aside. The bird was cooked, and was partaken of by a party of children. Our correspondent found the liver of the turkey (which had been supplied by an important firm), to be "studded all over with tuberculous masses," this diagnosis being confirmed by microscopical examination. On inquiry he found that the bird had been reared in one of the home counties, where the firm bought annually over 2,000 turkeys. The story is unpleasant, but it is reassuring to know that, according to the present state of knowledge, there is not much ground—though the question cannot be said to be quite settled—for believing that avain tuberculosis can be transmitted to man by ingestion. The experiments of Strauss and Wurrz and of Strauss and Gamaleia seem to show that birds are almost immune to tuberculosis of human origin. Rivolta and Maffucci have found that tubercle bacilli of avian origin have only slight pathogenic properties in regard to mammals. Koch himself has insisted upon the cultural differences between the two bacilli. On the other hand, we know that Gilbert, Roger, and Cadiot have been able to produce tuberculosis in rabbits by inoculating them with the avian bacillus. The same authors have also shown that hens may, under certain conditions, be infected with the human tubercle bacillus. These results have been confirmed by Courmont and Dor, Nocard, Delepine, and, we believe, also by Macfadyean. The guinea-pig, which is so easily affected by tuberculosis of mammals, is very resistant to avian tuberculosis, but is not so immune as some believe. We must therefore admit that avian tuberculosis may occasionally be transmitted to mammals. All our domestic birds (common fowls, turkey, guinea-fowl, peacock, pigeon, pheasant, etc.) are liable to it; indeed, epizootics may occur in poultry yards and entail serious pecuniary losses. Once a place has been infected the disease becomes enzootic, and is very difficult to eradicate unless all the birds in the poultry yard are destroyed and the place thoroughly disinfected. It is easy to understand this feature of the disease. Birds are usually infected through the alimentary canal; when a bird is tuberculous its excreta after a time teem with tubercle bacilli; the soil, straw, food, water, perches, nests, walls, etc., are rapidly soiled with these excreta, and in this way the bacilli may rapidly find their way into the alimentary canal of any number of birds. Even admitting that there is some danger of the disease being communicable to man, it does not seem likely that it would be communicated by ingestion. When a fowl is "cleaned" previous to cooking, the organs usually affected with tuberculous lesions (liver, spleen, intestine, peritoneum) are removed more or less completely. A cook would usually have no difficulty in recognising that a liver in a marked state of tuberculosis is diseased, and not fit for food. Birds are usually cooked very thoroughly. It is true that occasionally tuberculous livers may have been prepared for food. Moule has recorded a case in point. In a village where fowl tuberculosis was very prevalent, people were in the habit of preparing a paste with livers in an early stage of the disease. They were under the impression that the tuberculous lesions were indications of fatty changes, and, under this impression, they considered that these *foies gras* were great delicacies, and they partook of them accordingly. Indeed, all *pate de foie gras* is under suspicion. Still, admitting the possibility of transmission to man, we must look for danger in another direction. It is evident that the contamination of the soil and various objects with excreta teeming with bacilli will cause the dust raised from an infected place to be loaded with these. It must be remembered also that the avian bacillus is capable of growing rapidly outside the body. It is not an obligatory parasite, and can be grown on vegetable substances even at a temperature much below that of the body. It is not killed by drying. We know so little of the changes to which this bacillus is liable when growing outside the body that we are as yet unable to say if it is capable of acquiring special virulent properties under these conditions, and whether this dissemination of tuberculous dust constitutes a serious danger to man or some of the domesticated animals. So far we have no clear evidence of the existence of such a danger.

The Prevention of Hernia After Laparotomy.

Volkovitch regards the ordinary methods of incison in abdominal section as the great cause of subsequent weakness of the abdominal walls, and the formation of herniæ (British Medical Journal). In place of the incision along the linea-alba he recommends an incision through either rectus. The wound is closed by a series of sutures at different depths. The first series of interrupted sutures taken in the peritoneum and the inner layer of the rectal sheath. The second series of interrupted sutures unites the remaining layers with the exception of the skin, which is stitched up separately by a continued suture. In operations on the lateral regions of the abdomen the principle to be observed is to separate the tendinomuscular structures along the course of their fibres, as each layer comes into view, and not to divide the muscular fibres across in the plane of the wound, as is usually done. Taking the lower lateral region for instance, all incisions should have the direction from above downwards and inwards—that is, parallel to the fibres of the external oblique, which are then separated along their course, To ensure sufficient room for the same procedure with the underlying layers it is necessary to make the first incision somewhat longer than usual. The margins of the external oblique muscle are then forcibly drawn apart with retractors, and this separates them from the underlying internal oblique muscle. The latter is then opened up in the same way along its whole length, from the spine or crest of the ilium to the sheath of the rectus. The margins are again drawn apart with retractors, and the transversalis comes into view. As this muscle is continued inwardly as an aponeurosis, the separation of the fibres towards the rectal sheath has to be done with a knife or scissors. The direction of the last fissure is transverse, and the peritoneum is divided in the same line. To prevent it from slipping under the tense muscular margins during the course of the operation, it is fixed to the muscles by a few temporary stitches. The wound is closed after the operation by a series of sutures in layers. The first series unites the peritoneum and the transversalis muscles; the second the internal oblique; the third the external oblique; the fourth, unlike the others, is a continued suture, and includes the skin only. In some operations in this region—as, for example, for the removal of the appendix vermiforms, the above method does not give enough room. In such cases the author recommends the enlargement of the wound by continuing the laft transverse incision through the rectal sheath, and even through the margin of the rectus muscle, and not the addition of a longitudinal incision along the outer margin of the sheath, as recommended by some surgeons.

The Pathogenesis of Chronic Nephritis.

Senator (British Medical Journal) includes under this head, an insiduous inflammation of the kidneys, of which the cause lies in some faulty state of the blood, and which would eventually end in destruction of the renal parenchyma with formation of connective tissue. The kidneys, more than any other organ, suffer from changes in the circulation, and especially from the changes in the blood itself. The vessels of the Malphigian tuft and the capsule are particularly exposed to the action of any poison in the blood. The epithelium of the renal tubes is supplied by the same blood as the tuft, only in a more concentrated form. Semmola thought that the changed condition of the blood lay in an alteration of the blood albumen, and that this latter was due to a disturbed function of the skin, but it is not proved that a change in the albumen is primary. The starting itself of the processes and the share of the individual tissues in the disease vary according to the causative irritant, and the duration and intensity of its action. If it is slight and fleeting, the parenchyma is affected, but with a severe irritant all the tissues may be affected, even if not in equal degree. What part of the parenchyma is involved depends also on the character of the irritant. It is difficult to explain why it is that when the caused has ceased to act, the disease still proceeds as in chronic following upon acute nephritis. Not only can no microbes and no toxins be found in the urine, but the urine itself possesses a diminishiug uretoxic co-efficient. In some insiduous forms of nephritis the question arises as to whether the parenchyma or interstitial tissues are present in a very early stage. The author thinks that the changes in the different tissues often occur simultaneously. Arterio-sclerosis in the kidney may be the result of chronic infiammation, or it may be primary or may arise coincidently with the inflammation. Senator then summarises his conclusions: (1) Chronic nephritis is usually due to a faulty state of the blood. (2) It may arise from acute nephritis and own the same cause; it may end in a secondary granular atrophy. (3) There is a primary granular atrophy or chronic interstitial nephritis. The change here may perhaps occur primarily in the interstitial tissue. (4) There is no contracting nephritis, due to a primary arterio-sclerosis. (5) Closely allied to the latter is a contracted kidney, due to a deficient blood atrophy. The typical example of this is when the disease is due to a narrowing and aplasia of the renal arteries, whether acquired or congenital.

Catching Cold as a Cause of Disease.

"Catching cold," in the ordinary and still prevailing sense, does not exist, according to a recent German authority (Dietetic and Hygienic Gazette).

In general, "catching cold" plays a very subordinate role as an etiological moment. In inflammatory diseases, "catching cold" can appear simply as a disposing cause.

It usually depends upon the action of thermic agents, which are usually unavoidable, *i. e.*, chief of all upon very slight degrees of cold.

Individuals of advanced age, febrile patients, and those suffering from kidney affections, appear to be more disposed to diseases resulting from "catching cold."

The prophylactic measures generally employed against "catching cold" are not only accompanied by a directly opposite result, but they rather expose the organism to a much more serious danger than would be expected to result from disease consecutive to "catching cold."

Protection against diseases resulting from "catching cold" can solely be secured by developing the reactive capability to thermic irritants by appropriate exercise.

A Simple Method of Estimating the Toxicity of the Urine.

According to the British Medical Journal Pelligrini has made a number of experiments which go to show that the amount of potassium indoxyl sulphate in the urine is a reliable index of the degree of its toxicity. He commends the employment of Primavera's test for this substance, which is as follows: Pour from 4 to 5 c. cm. of urine into a test tube, and add slowly one-third the volume of pure concentrated sulphuric acid. Cool the mixture by dipping the end of the test tube into cold water. Add 1.5 c. cm. of pure chloroform. Mix thoroughly, and then allow the chloroform to settle to the bottom of the tube. If potassium indoxyl sulphate is present in normal quantity, the chloroform has a light-blue tint. When it is present in excessive amount the chloroform has a deeper bule color proportionate to the excess. Information regarding the degree of toxicity of the urine is of special value in cases of insanity, in the causation of many of which auto-intoxication is now known to be a very important factor. Pelligrini believes that the increased toxicity of the urine in such cases is chiefly due to abnormal fermentation within the gastro-intestinal tract; it is important, therefore, to correct any disorder of digestion in these patients.

The Typhoid Bacillus in Butter Milk.

E. Frenkel and Kister (British Med. Journal) refer to an epidemic in Hamburg in which women and children were largely affected, and which appeared to be spread by milk. In a small number of the cases butter milk was suspected to be the infecting agent. Milk has been repeatedly shown to be the means by which typhoid fever is spread. Sterile milk is an excellent cultivation medium for the typhoid bacillus, and non-sterile milk does not lead to the destruction of the typhoid bacillus rapidly enough to preclude infection. The authors then refer to the published researches upon the vitality of the typhoid bacillus in milk. Within their knowledge no similar investigations have been made with butter milk. Butter milk has an acid reaction, which becomes more marked after a few days. Thus only certain microbes can continue to live in it. Whereas most microbes present in it can readily be distinguished from the typhoid bacillus by their colonies, yet there is one variety which resembles it in its growth. It was however found to be non-motile and gas-producing. Another variety was actively motile, and produced no gas, but its colonies were rounded and finely granular, and it gave a negative reaction with typhoid serum. The authors also investigated the vitality of the typhoid bacillus in butter milk. The degree of acidity present did not suffice to kill this microbe. Researches were made to find out how long the typhoid bacillus could live in the presence of the gas and acid-producing microbes of butter milk. In all the butter milk tubes infected with the typhoid bacillus, a gradual diminution of the typhoid bacillus was noted, so that at room temperature they could not be found after three days, and at body temperature not after twenty-four hours. It is easily understood how the typhoid bacillus can live in sterile butter milk, and yet die in the non-sterile, owing to the increase in the acid-producing microbes present. These researches, although perhaps not exactly corresponding to the natural conditions, yet show that a small quantity of typhoid bacilli are not destroyed in butter milk for at least forty-eight hours. The possibility of infection by butter milk must be admitted, and caution must therefore be exercised in its consumption during typhoid epidemics.

Exercise Treatment in Nervous Diseases.

Goldscheider, in the Edinburgh Medical Journal, especially refers to tabes dorsalis and some other diseases. He maintains that the ataxia is due to a disturbance of the muscular sense. He first learned to use exercise in v. Leyden's clinic; but this method has been subsequently largely extended by Fraenkel. In the so-called paraplegic stage of tabes slight flexions and extensions, etc., of the limbs may be made when the patient is in bed. Help may be given by lightly supporting the thigh or leg. A chair may be inverted over the foot of the bed, and the patient can then exercise himself in touching the cross bars or by putting the feet in between them. The movements are first made with the eyes open and afterwards with closed eyes. Ample periods of rest must be allowed so as not to produce fatigue, otherwise an exhaustion lasting over several days may result. The author confirms Fraenkel's opinion that even in these advanced cases improvement may be produced and the patient may even walk again. Some patients do not improve, and sometimes the exercises have to be given up owing to the pains which are apparently induced by them. In less advanced cases various movements may be practised to improve the gait, and the author figures many pieces of apparatus adapted to this end. A chair on four legs with rollers may be useful. The treatment must be persisted in over long periods of time. The chief point lies in many movements performed without fatigue and with intervals of rest. The author draws attention to the absence of the sense of fatigue. In some patients there is an atony of the muscles, and here electricity and massage must be employed as well. The knee and hip joints may be supported by bandaging. The author then refers to the treatment of intentional tremor by exercises. He looks upon this tremor as closely allied to ataxia, and as capable of improvement by exercises. In chorea some improvement may also be produced, but the exercises should be carried out only once in the day or once in two or three days. The good effects of this treatment in writers' cramp are well recognized. In athetosis also some improvement may be produced by long-continued exercise treatment. In speaking of paresis and muscular atrophies the author draws attention to the value of exercises carried out in a bath, and especially in peripheral neuritis. In neuralgias, etc., exercises, particularly of a passive form, may be useful, In articular pains left after rheumatism, and more especially after contusions, this treatment is valuable. Goldscheider thinks that much more attention should be given to exercise treatment.

Indications and Contra-Indications for Massage of the Abdomen.

Dr. B. Reed discusses this subject. (International Medical Magazine.) He says:

Patients for whom medicine had done little or nothing, began speedily to gain in strength, color, and ability to sleep after being put upon this treatment. They usually reported at the same time that their digestion was improving and often that their previously constipated bowels were beginning to move spontaneously. It occurred to me that these cases of neurasthenia had probably been a result of indigestion and that the massage produced much of its good effect by a favorable influence upon the digestive processes. Experience has confirmed this view and has demonstrated to my satisfaction, that massage, especially in the form of deep kneading (petrissage) over the abdomen, not only increases the tonicity of the exterior abdominal muscles as well as the entire muscular apparatus of the stomach and intestines, but also the grandular functions in both. In patients under this form of treatment I have frequently been able to demonstrate a marked increase in the secretion of the gastric glands.

Conditions under which massage of the abdomen has been found in my experience particularly useful:

1. Chronic gastritis in all its forms excepting those accompanied by hyperchlorhydria.

2. Anacidity or subacidity, except when dependent upon acute gastritis or carcinoma.

3. Gastrectasia, not dependent on cancer.

4. Atonic conditions of the stomach walls, whether progressed to the stage of dilatation or not.

5. Displacements of the various abdominal organs including

a. Gastroptosis.

b. Nephroptosis, except in cases where the kidney has become excessively tender on pressure.

c. Enteroptosis.

6. Chronic intestinal catarrh, not complicated by deep ulceration.

7. Dilatation of the intestinals.

8. Constipation from unknown causes. In many such cases massage often succeeds.

9. In a group of symptoms which comprise especially tenderness over a region three or four inches in diameter including the umbilicus as its centre and a marked pulsation of the abdominal aorta in the entire epigastric region. These symptoms have been assumed, with how much of truth I am not prepared to say, to denote congestion of the solar plexus. They are often met with in practice and may be the result of auto-infection from the gastro-intestinal tract. My experience shows that these symptoms are usually benefited by gentle kneading of the abdomen in connection with careful attention to diet.

The principal contra-indications for massage of the abdomen:

1. Ulceration in any part of the stomach or intestines.

2. Cancer of any of the abdominal organs.

3. Acute inflammation in any part of the gastro-intestinal tract.

4. Hyperchlorhydria.

5. Prolapsed kidneys which are acutely sensitive to palpation.

6. Aneurism of any of the abdominal or thoracic arteries.

7. During the menstrual period, when the flow is excessive or when there is a tendency to menorrhagia.

8. In fatty degeneration of marked dilatation of the heart and advanced phthisis, especially with a tendency to hemoptysis, abdominal massage should be practiced, if at all, with much care and gentleness.

The Value of Bran Foods.

At a meeting of the College of Physicians of Philadelphia, a valuable paper on this subject was presented by Drs. N. A. Randolph and A. E. Rousel. The following are their conclusions (Dietetic and Hygeinic Gazette):

The experiments of Rubner leave no doubt that a white bread contains more assimilable nutriment than one made from the whole wheat does, but this does not render it a desirable foodstuff for exclusive use. On the contrary, a weaned but still quite young omnivorous mammal thrives better upon an exclusive diet of bran bread than on white, and, presumably, because the earthy and alkaline salts are present in greater abundance in the former, and also because the indigestible constituents tend to give to the intestinal contents that bulk and consistence which are essential to the hygiene of the digestive tract. But, as has been shown by Edward Smith and others, the branny scales are needlessly irritating, and unduly hasten the passage of food but partially digested. The end which popular hygiene attempts to effect by the retention of bran in breadstuffs can be better attained by other means. Thus, the nutritive minerals of food, so frequently lost in ordinary methods of preparation, are readily restored by the concentration of the liquor in which meats and vegetables are cooked into a soup stock, as is practiced in almost every French kitchen. Again, the various fresh green vegetables used as salads yield in abundance these mineral foodstuffs, the presence of which we have seen is indispensable to normal tissue activity. A further advantage of these and other succulent vegetables lies in the fact that their cellulose is as compared with bran scales—soft and unirritating to the digestive tract.

From the facts, old and new, which have been presented, the following deductions appear to us justifiable:

1. The carbohydrates (or starches and sugars) of bran are digested by man to but a slight degree.

2. The nutritive minerals of the wheat grain are contained chiefly in the bran, and, therefore when bread is eaten to the exclusion of other foods, the kinds of bread which contain these elements are the more valuable. When, however, as is usually the case, bread is used as an adjunct to other foods which contain the inorganic nutritive elements, a white bread offers, weight for weight, more available food than does one containing bran.

3. That by far the major portion of the gluten of wheat exists in the central four-fifths of the grain, entirely independent of the cells of the fourth bran layer (the so-called "gluten cells"). Further, that the cells last named, even when thoroughly cooked, are little, if at all, affected by passage through the digestive tract of the healthy adult.

4. That in an ordinary mixed diet the retention of bran in flour is a false economy, as its presence so quickens digestive action as to prevent the complete absorption, not only of the proteids, or flesh-formers, pres-

ent in the branny food, but also of other foodstuffs ingested at the same time.

5. That inasmuch as in the bran of wheat as ordinarily roughly removed there is adherent a noteworthy amount of the true gluten of the inner parts, any process which in the production of wheaten flour should remove simply the three outer protective layers of the grain would yield a flour at once cheaper and more nutritious than that ordinarily used.

The Nature of the Flagellate Forms of the Parasite of Malarial Fever.

The Boston Medical and Surgical Journal calls attention to the fact that in the blood of birds, parasites similar to the parasite of malarial fever are sometimes found. Opie, about a year ago called attention to the fact that in the hematozoan infection of crows, two forms of the adult organism could be distinguished, and suggested that one of these forms only might be capable of developing into the flagellate form of the parasite.

MacCallum has more recently found that Opie's suggestion is the fact, and has further found that the flagella of the parasite may separate themselves from it and as small motile filaments, may be observed to wriggle about the other adult forms. One only of these motile flagella penetrates the body of the parasite, which then undergoes certain changes in shape and appearance to become transformed into another form of the organism.

The occurrence of the flagellated forms of the malarial parasite, of course suggests a similar function for these flagella, and MacCallum has been able to demonstrate that such is the truth. From his observations of the blood in a case of malarial infection of the estivo-autumnal type, in which there were a great number of so-called "crescents," he writes as follows:

"These (the crescents) in a freshly-made slide of blood, with very few exceptions, retained their crescentic shape for only a few minutes. They soon drew themselves up, thus straightening out the curves of the crescent, while shortening themselves into the well-known ovoid form.

"After the lapse of ten or twelve minutes, most of them were quite round and extra corpuscular, the bib lying beside them as a delicate circle or shadow of the red corpuscle. After twenty to twenty-five minutes certain of these spherical forms became flagellated; others and especially those in which the pigment formed a definite ring and was not diffused throughout the organism, remained quiet and did not become flagellated. In a field where an example of each form could be watched the flagella broke from the flagellated form and struggled about among the corpuscles, finally approaching the quiet spherical form; one of these entered, agitating the pigment greatly, sometimes spinning the ring about. The rest were refused admission, but swarmed about, beating their heads against the wall of the organism. This occurred after thirty-five to forty-five minutes."

After this the organism became somewhat larger with long movements in its interior and no further changes were observed.

MacCallum regards this process which he has observed in both species of hematozoa as one of fertilization and the motile flagella as a form of spermatozoa.

Heredity in Relation to Life Assurance.

Dr. Hermann Weber, in his recent Presidential address delivered to the Life Assurance Medical Officers' Association, took for the subject of his discourse Heredity in Relation to Life Assurance, (British Medical Journal). The first part of his paper was devoted to the consideration of a kind of heredity which has not yet received the amount of attention it merits: the heredity of the duration of life. People may be divided into three groups: (1) Those belonging to families, most of whose members reach adult life, and die between 60 and 72, unless cut off by infectious diseases or other unfavorable circumstance; (2) long-lived families, that is families in which there is a tendency to very long life; (3) short-lived families, almost all the members of which die before 60, ill defined conditions, coming under the head of a general breakdown, playing an important part in bringing about early death. To the first group the bulk of the assured belong. The second group is a very profitable one to assurance companies, and Dr. Weber was able out of his ripe experience to give examples of applicants whom he had recommended for assurance, in spite of very considerable flaws in their records, solely on the ground that they belonged to long-lived families, the result being satisfactory to the office. The experience of assurance offices in regard to the third group is frequently of a disastrous character. And it is especially in respect to this class that officers are liable, quite unintentionally on the part of the applicant, to be deceived. A man of 24 or 25 applies for assurance; in reply to the uaual question as to wheher his father and mother are alive and well he answers, Yes. The fact being that the parents, possibly being under 50 years of age, have not reached the period of life at which the breakdown occurs. Hence, for young lives, it may be necessary to extend our inquiry into family history beyond the father, mother, brothers, and sisters of the applicant. Dr. Weber takes what is no doubt the correct view as to the influence of heredity with regard to phthisis. He considers it "a very powerful element," and it will probably be admitted that some of those who have written on the infectious nature of tuberculosis have hardly laid sufficient stress on the predisposition to phthisis which is met with as an innate condition in some families. In estimating the risk of heredity in phthisis, Dr. Weber agrees with the general view that it is greatest up to 30; it then diminishes gradually up to 40, and still more so from 40 to 50. He maintaint, however, that it never ceases entirely, and states that he has repeatedly met with persons with hereditary taint who after 50 have fallen victims to tubereular phthisis, when their circumstances in regard to living, hygienic, and other conditions had changed from good to bad. The hereditary tendency to emphysema and chronic bronchitis is a point to be borne in mind in estimating the value of a life for assurance purposes. Experience as to the heredity of diabetes supports Dr. Weber's recommendation to refuse an applicant under 30 if one of his parents and a brother or sister have died of the disease. Between 30 and 40 the life might be taken with a large extra, and with a smaller addition later. The hereditary tendency to degeneration of the smaller arteries is generally accepted, as is shown by the questions about apoplexy and paralysis in most proposal forms; but Dr. Weber rightly insists that heredity in regard to the heart and blood vessels is hardly sufficiently appreciated, yet that it is present, not only as a disadvantage, but also as a good element. Many other hereditary conditions are discussed in this thoughtful paper, which will well repay the medical man who reads it, even though he be not directly connected with life assurance work.

Immunity—Recent Theories Viewed from the Clinical Standpoint.

After analysing the different theories, Dr. W. Gilman Thompson (Medical Record) reaches the following conclusions:

1. The phagocytic action of the leucocytes in combating infection is of but little importance, and is mainly concerned in the removal of waste products rather than the devouring of living hacteria.

2. The leucocytes probably secrete substances which are both inimical to living bacteria and antagonistic to their toxins. The antagonism may be through counteracting the irritant effect of the toxins upon the general tissues and cells of the body.

3. The antitoxins of the serum, whether artificially injected or developed within the body, do not act by chemical neutralization of the toxins, but through stimulation to greater resistance of either the leucocytes or the tissues or both.

4. The blood itself, neither through its leucocytes, nor through its serum, is capable of producing all the phenomena of permanent immunity. To a limited extent only can it be relied upon for the prohibition of toxic symptoms.

5. It remains for the tissues to offer the final combat against the toxins, and to develop a more or less permanent resistance to them, which is transmitted to successive cell generations as more or less permanent immunity. To this effort they may be incited by either toxins or antitoxins in addition to the exercise of the inherent property of living protoplasm to resent irritation of any sort.

6. It is probable that natural immunity does not differ in kind from acquired immunity, which has been perpetuated for an unusually long period through succeeding generations.

Suprapubic Cystotomy.

Prof. John Wyeth, in discussing this subject in the New York Polyclinic, says:

1 The parts about the field of operation, and where the urine might flow, should be shaved.

2. The patient should rest in full extension upon the table.

3. It is of advantage to have the hips higher than the shoulders, as the weight of the intestines will be thus removed from the bladder.

4. Rectal distention is never necessary.

5. Water is the best thing with which to distend the bladder.

6. The longitudinal incision beginning one inch above the margin of the symphysis pubis and two inches long, is best.

7. Arrest hemorrhage as operation proceeds.

8. The size of the incision in the bladder must be regulated to suit individual cases.

9. The peritoneum should be dissected up from the bladder, and if cut or torn should be sutured at once with catgut.

10. Close the opening in the bladder when the case will admit of it by using catgut and Lembert suture.

Dr. Charles B. Kelsey.

We notice in the Lancet Clinic that Dr. Charles B. Kelsey, who had held a professorship in the Faculty of the Post-Graduate Medical School and Hospital since 1890, was removed by a vote of the Board of Directors of the institution at the beginning of the present year. The reason for this action was that Dr. Kelsey had notified the Corporation Counsel of the city that the annual report of the hospital, which receives from the public funds thirty-eight cents a day for each infant cared for by it without charge, was misleading, and that it claimed ten thousand more days' free care for infants than it was in reality entitled to. He also expressed opposition to the expenditure of certain endowment funds to meet current expenses of the hospital. Accordingly, charges of improper and disloyal conduct were preferred against him. After his removal, Dr. Kelsey instituted proceedings in the Supreme Court for reinstatement, claiming that he had been dismissed without a hearing, to which he was legally entitled, and that such a removal could be made only by a three-fourths vote of the entire Board. On Februrry 21 Judge Pryor, before whom the case was tried, rendered his decision in Dr. Kelsey's favor, and ordered the Board of Directors to reinstate him in his professorship.

A Hypnotic for the Aged.

While many of the cases of insomnia occurring in persons in advanced life are amenable to simple hygienic measures there is a considerable number of patients who are compelled to rely more or less upon the use of hypnotics in order to obtain sleep. In selecting a hypnotic for the aged especial care should be taken that the drug is free from toxic effect upon the heart and nervous system, and that its use is not attended with unpleasant after effects. In this class of patients trional has proved particularly useful, because it is prompt in action, safe and effective, producing normal sleep without disagreeable sequelæ. The following two cases reported by Dr. James H. Tay- protessor of Diseases of Children and Clinical Medicine in the Medical College of Indiana, serve well to illustrate its value as a hypnotic for the old: The first patient, aged 76 had been a great sufferer from insomnia. After having tried chloral, the bromides, and other hypnotics, with negative results, he finally resorted to the use of morphine. While he liked the last named remedy in some respects, he also experienced its ill effects, the "habit", etc. At the doctor's request, he abandoned the morphine, and had recourse to trional, with very satisfactory effects, even during its continusd employment. The second patient, aged 67, suffered from cardiac dropsy, and while, previously, morphine hypodermically was tho only drug that relieved his insomnia, its use had been superseded by trional, with excellent results.

The Value of the "Grape Cure,"

in certain forms of intestinal disease has long been known. The "apple cure," the "peach cure," and the "strawberry cure." have each had its advocates as a rival to the "grape cure." A recent writer on medical dietetics remarks that the rationale of the "grape cure" and other forms of fruit cures is not yet understood. We think the reason is plain, since the bacteriological investigations reported in this journal some months ago have shown clearly that those micro-organisms which are most abundant in certain forms of indigestion, particularly those accompanied by so-called billiousness, coated tongue, bad taste in the mouth, etc., do not thrive in fruit juices, and die quickly in grape juice. The fact shows quite conclusively that the value of a fruit dietary in indigestion is chiefly due to the germicidal properties of the fruit juices.

Dr. A. M. Ritter of Milo, Ohio, Jan. 29th, 1898, writes:

I wish to speak especially of the merits of Papine, as an analgesic and sedative. I have had success with it when all other remedies of like character had failed. One case in particular of intestinal indigestion, in a child twelve months old, attended with a great amount of pain, and extreme nervousness, and insomnia. The remedy worked like a charm in relieving pain, and giving rest. The remedy was given in five-drop doses to begin with, as required to give rest and relieve pain. Papine was used in this case for at least six months, in increasing doses, without doing the least harm. It has been now three months since Papine has been discontinued, and the child is in perfect health. I consider Papine one of our most valuable remedies as a pain reliever and nerve sedative in well-selected cases.

Medical Society of North Carolina.

The Committee of Arrangements of this Society have decided on May 3rd, 4th, and 5th, as the dates for the meeting of the next session in Charlotte, N. C.

Syphilis and Civilisation.

One of the most notable communications presented at the late International Congress at Moscow was that by the distinguished Austrian alienist, Krafft-Ebing, on the etiology of progressive paresis. (The Therapist.) It created the more sensation from the fact that it coolly reported a pathologic experiment of a character that would, of all others, be likely to call out comment and reprobation from those who are always ready to criticise such attempts to increase our knowledge at the apparent expense of patients under medical care. A much less obviously equivocal one by a Baltimore professor has led to some severe comments, and it is rather remarkable that thus far Americans should have been so forbearing under a still more aggravating occasion.

While Krafft-Ebing's experiment of inoculating paretics with chancre virus to demonstrate their non-inoculability by syphilis and hence their prior syphilisation, was certainly a bold experiment to report, and certainly open to sentimental if not to other more weighty objections, it is a very interesting fact, and, in the main, is strongly confirmatory of the opinion that is now all but general, that paresis is a sequence if not a direct result of syphilitic infection in a vast majority of cases. Indeed it may probably be said that it is such in all but very exceptional instances. His deduction from this with the other data we have on the subject, that its two great etiologic factors are, as he puts it, syphilisation and civilisation, the stress of modern life acting on a system prepared by the results of earlier infection, is likely to be accepted as the correct one by alienists generally, though there are yet, and possibly may be, for a long time in the future, some few who will reject it against all the weight of evidence in its favor.

In the Gazetta degli Ospedali of November 7th, Morselli reviews the general facts as to the etiology and extension of paresis in rather a striking manner. He quotes statistics to show that it is very markedly increasing in its prevalence. In Italy the number of known cases, for example, has nearly doubled in a little over one decennium, and in Bavaria it increased from 9.3 per cent. of all the insanity in 1869 to 23.2 per cent. in 1874; it is undoubtedly in his opinion the special "disease of the nineteenth century." He holds, moreover, with Næcke, and in opposition to the French school, that it is a disease to which there is a special predisposition, not by a congestive heredity, but by general degenerative peculiarities which, it would appear, are becoming more common in our modern civilised populations, where the fierce struggle for existence is fought out under constantly and ever increasingly severer conditions than heretofore. Its immediate exciting cause is therefore the stress of modern life acting on a predisposed and weakened nervous organisation, which is itself probably more or less the result of the same general conditions.

This alone, however, is not an efficient cause; there must be generally superadded still another, the toxin of syphilis, which renders the catastrophe more inevitable, and Morselli follows Krafft-Ebing in his etiologic duet, but reverses the order, making it civilisation and syphilis, inasmuch as the greater diffusion of the latter is, with that of alcoholism, the direct result of the former. As is often said, the modern man of the present day undergoes a very much heavier strain on his nervous system than did his predecessors of a century, or of even less than that, before him, and with each advancing decade this stress seems to be steadily on the increase. With this increase of mental and nervous strain there is also an increase of luxury, which, with its attendant urban concentration and sexual excess, has made syphilis more common in the population of the civilized world than was heretofore the case. We have therefore the requisite conditions which, combined, tend to the increase of paresis, and such is their inevitable result.

As Morselli points out, we can see no immediately effective remedy for the great predisposing and exciting cause of paresis, the special character and peculiarities of modern civilization which aggravate the struggle for existence and at the same time increase the tendencies to degeneracy which predispose to paresis. We must, it would appear, wait for the social evolution and human development that ought in time to bring about a better equilibrium and reestablish what, borrowing an engineering term, we may call the normal regimen of humanity. But as regards the specific predisposition, it would seem that more is possible; certainly more public effort can be exerted to check the spread of syphilis than is being done at present.

We have not long since realized that all venereal diseases are disastrous, and hence have more than ever reason for desiring their suppression. If it is generally admitted, and this seems to be probable, that syphilis once acquired, no matter how thoroughly and successfully treated, leaves behind it a possible liability to the most formidable of brain affections, paresis, we have another strong inducement for additional measures to check its extension The social evil, in the light of modern pathologic research, is ever becoming more and more an important social question. if not the most important one of the time. How it is to be settled is a problem in the solution of which our profession can aid by showing the ever increasing need of its abatement or suppression.

The Significance of Hæmaturia.

Dr. J. H. Morgan (British Medical Journal, Feb. 12, 1898) states that hæmaturia may indicate a local or a general disease, and the detection of its origin must always be of primary importance. It may arise from any part of the tract, and may be so minute as to escape all but the most careful search by the microscope or by tests. It may be constant and slight, or profuse and intermittent. Apart from poisoning by such drugs as chlorate of potash, cantharides, turpentine, carbolic acid and rhubarb, small quantities of blood are found in the urine of young infants as the result of irritation of the tissue of the kidney by uric acid and other crystals; when more abundant it occurs in connection with the other evidences of scurvy rickets, of which it is sometimes the earliest symptom. In purpura, the hæmorrhage from the kidney is often profuse with intervals of intermittence, and in hæmophilia it is also common.

Dr. J. Abercrombie has recorded a case of Raynaud's disease in which a little boy passed bloody urine day after day for six weeks together in the colder seasons, which ceased when the child was kept warm before the fire. In volume xv of the Transactions of the London Medical Society will be found a very interesting account of a case of Raynaud's disease with paroxysmal hæmoglobinuria by Dr. Haig, in which he says that his previous researches led him to believe that both the Raynaud's disease and the hæmoglobinuria in this case (that of a girl aged 6 years) were due to excess of uric acid in the blood (uricacidæmia) and this theory affords a most simple explanation of their evident connection. Blood in smaller quantities occurs in Bright's disease, in hæmorrhagic measles, in scarlatina, diphtheria and small-pox. What has been named Winckel's disease, in which cyanosis, jaundice, and hæmoglobinuria attacks new-born children on or about the fourth day and causes death in forty-eight hours, has not been observed in this country; but paroxysmal hæmaturia or hæmoglobinuria, where no blood corpuscles can be detected but the urine is nevertheless stained with blood pigment, has been fairly often detected. Herringham has described the cases of two sisters, 3½ and 4½ years of age, who were hereditarily syphilitic; and Dr. Vœlcker, who has noted several others, finds a syphilitic taint in all of them. I have, however, seen a typical case in private where no such suspicion could have existed.

But it is as a symptom of local affections that hæmaturia is of diagnostic value to the surgeon, and of these I shall have to speak later. As a general rule, hæmorrhage from the kidney is more profuse than from the bladder, and is seldom accompanied by pain unless it gives rise to the formation of clots in the ureter, when the pain may be referred to the loin, the testes, or the thigh, but ceases as soon as the clot is washed onward to the bladder. The origin of the hæmorrhage from the kidney is generally confirmed by the presence of casts and epithelium. In examining cases of supposed hæmaturia it is well to keep one's eyes open to tbe possibility of deception, as instanced by the case narrated in the Clinical Society's Transactions, vol. xxiv, by my late colleague, Mr. Leopold Hudson, of a boy aged 11, who gave a history of suffering from the usual symptoms of stone, and brought a specimen of his water with a red stain, which was afterwards found to have been produced by steeping in his urine a piece of rag stained with Turkey-red dye.

Traumatic Pulmonary Tuberculosis.

Schrader says that trauma has long been recognised as a possible cause of acute pneumonia, but that the connection between injury and chronic disease of the lung is less easily established. He relates the following case: (British Medical Journal, Feb. 12, 1898.)

A man aged 29, previously healthy, and with no family history of phthisis, had a severe fall on the right side of the back, and was unconscious for fifteen minutes. On the same evening he felt ill, and was admitted into hospital two days after the accident. There was then considerable grazing over the right scapula, and pain was complained of in the chest corresponding to the injured part. The breathing was difficult, and the temperature 38.8 degrees C. The breath sounds were absent, vocal vibration increased, and the percussion note impaired in the region underlying the injury. The diagnosis of pneumonia of the right, middle, and lower lobes was eventually made. About thirteen days after the accident tubercle bacilli were found in the sputum. The patient's condition remained much the same for some days. There was loss of weight. Eventually improvement took place, so that four months after the accident there were no abnormal physical signs beyond a slightly impaired note over the lower part of the right lung. · The author refers to some recorded cases of supposed phthisis following injury. He draws attention to the fact that before the traumatism the patient was absolutely well. Whether the pneumonia following upon the injury is to be looked upon as a contusion pneumonia which favoured the invasion of the tubercle bacillus, or whether it was a tuberculous broncho-pneumonia from the beginning, is difficult to decide. The author is inclined to accept the latter interpretation. The temperature chart was characteristic of tuberculosis. Finally the author summarises the evidence in favour of this view: (1) The development and course of the tuberculous lesion were carefully observed after the accident; (2) the disease corresponded to the site of the injury; (3) there was no clinical evidence of tuberculous disease in the lung, immediately after the injury, and no history of previous Illness; and (4) certain proof of tuberculosis was forthcoming some little time after the accident, the development of which was quite in keeping with that of the ordinary disease.

Asthma Treated by Antidiphtheria Serum.

L. Revilliod has used antidiphtheria serum in the treatment of seven cases of true spasmodic asthma with the following conclusion: (Giallord's Med. Journal.)

(1) An asthmatic attack is probably an attempt to eliminate by the respiratory passages a volatile poison, which is at the same time the cause of the attack. (2) The classical drug for asthma, namely, iodide of potissium, is excreted by the respiratory tract, and probably acts by facilitating gaseous excretion, and rendering unnecessary the athmatic dyspnœa. (3) Antidiphtheria serum, apart from its specific action on the diphtheria toxins, is excreted by the respiratory tract, as shown by its effect on loosening the false membranes. An outward excretory current is thus set up, and the vitality of the mucosa modified, just as is the case with iodide and chlorate of potassium. (4) Iodides, antidiphtheria serum and asthma have this in common—that they all frequently produce rashes, which shows that the skin as well as the lungs in an excretory channel. (5) This treatment need not violate the fundamental doctrine of serum-therapy. For diseases apparently different may be allied in one or more points, and thus it is that quinine cures other diseases than malaria, mercury than syphilis, and that chlorate of potassium acts as well in ulcerative as in mercurial stomatitis. In accordance with this Revilliod finds that antidiphtheria serum has an action as brilliant in streptococic as in diphtheritic angina. Seven cases of asthma were thus treated with the following results:

(1) Three cured; (*a*) male, aged 24; asthmatic attacks every night for six years; respiration always noisy and shallow; numberless methods of treatment without result; complete cure after ten injections of 10 c. cm. of Roux's serum spread over five months. No relapse when seen 6½ months later; (*b*) female, aged 40, rheumatic subject, asthmatic attacks every night for 7 months; other treatment without effect; cured by three injections of 10 c. cm. of the serum in ten days, and remained quite well when seen five months later; (*c*) male, aged 36; asthmatic and short of breath since bronchitis eight years ago; for last month attacks every evening between five and eleven, and at other times if fatigued, etc.; other treatment unavailing; cured by six serum injections in two months. (2) One permanently relieved; male, aged 56; asthma 44 years; three injections in ten days. (3) Three cases temporarily relieved, but the treatment was not always persevered in. The injections cause at first the attacks to be less severe, then at greater intervals. An injection was usually given whenever an attack threatened.

The Influence of Diseases of the Nares and Pharynx on Aural Affections.

Dr. L. S. Somers has studied 600 cases of middle ear diseases and formulates the following conclusions (University Medical Magazine):

1. Sclerosis of the middle ear is usually the result of previous nasal or pharyngeal disease.

2. Otitis media suppurativa is a common and frequent result of acute or chronic naso-pharyngeal disease.

3. Fully 75 per cent. of all forms of middle-ear disease will show on examination, or give a history of naso-pharyngeal disease.

4. Sixty-four per cent. of tympanic affections are coincident with pathological changes, either in the nares or pharynx, or both.

5. Sclerotic or atrophic changes of the naso-pharynx are of little consequence in the production of deafness as compared with chronic hyperthrophy or any morbid change producing congestion of the nose or throat.

6. Of nasal affections, hypertrophy of the turbinals is the most potent factor in the production of aural disease. Deviated septum and exostoses influence the tympanic

cavity by producing changes in the atmospheric pressure.

7. Aural affections are more frequent in hypertrophies of the postnasal space or nasopharynx than in either pure nasal or pharyngeal disease.

8. The effects of passing disease of the nares or pharynx in the production of middle-ear disease are of much importance.

9. General diseases, such as measles, with local naso-pharyngeal manifestations, exert a marked causative influence in the production of middle-ear disease.

10. To a great extent the successful issue of aural disease depends upon appropriate naso-pharyngeal treatment.

The External Treatment of Cardiac and Circulatory Affections by Baths, Exercises and Climate.

Dr. P. Hyde at a recent meeting of the Balneological and Chinatological Society pointed out that these methods, although not new in principle. were comparatively new to practice, and that they had not yet emerged from the necessary stages of trial and verification. (British Med. Journal, Feb. '98.) He had added climate, but admitted that the two factors around which recent interest and discussion had centred were the balneological and gymnastic methods of treatment. In describing these methods and their physiological and therapeutical effects, whilst recognising the potency and usefulness of the effervescent saline baths, he was inclined to believe that well-regulated exercises combined with suitable change of air were sufficient to obtain equally good results without the baths. He also pointed out the usefulness of forced respiratory exercises in cardiac treatment. As to the alleged shrinkage in the size of the heart, he admitted the probability of a gradual but limited diminution as part of the improved nutritive changes in the general organism, but doubted whether the evidence at present available justified more than this. The difference was probably more one of decrease of perspective area arising from a change of position by the more vigorously acting heart. The subject of the effects of the various mineral baths upon the heart and circulation, he said, had been much neglected by bath physicians, and he contended that many cardiac cases were benefited during the routine practice of baths, exercise, and climate for other maladies, and that much greater benefit might be expected if cardiac affections were treated with definite and set purpose by the ordinary bath and other resources at our home resorts. He further pointed out the dangers of overlooking the cumulative effects of hot and warm baths by which cardiac weakness previously existing was often aggravated and bad symptoms before absent developed. Much of the success of the treatment at Nauheim was doubtless due to the accessory conditions of change of air, change of diet, separation from drawbacks to treatment, inspiration of hope, and so forth. He spoke in strong terms as to the use of unqualified attendants, describing it as "fast growing into a gigantic and monstrous evil—an evil which (he was persuaded) was fraught with grave danger to the public and serious damage to the profession." In conclusion, whilst desiring to accord to the methods of Dr. Schott a true and just estimate of their value, he expressed a hope that he had succeeded in showing that the fundamental principles of the so-called Nauheim treatment of heart disease, although much obscured, had long been recognised and practised in this country, and that it was possible to obtain equally striking results by a more methodical and systematic application of these principles without strict resort to the special Nauheim methods.

The American Medical Association.

Section on Materia Medica and Therapeutics: The following papers and discussions have been promised for the meeting at Denver, Col., June 7-10, 1898 : —

"Yellow Fever: Its Etiology and Treatment." Discussion by Surgeon-General George M. Sternberg, M. D., of Washington, D. C.; Prof. John Guiteras, M. D., Philadelphia; Sollace Mitchell, M. D., of Jacksonville, Fla.; T. S. Scales, M. D., of Mobile, Ala.; G. B. Thornton, M. D., of Memphis, Tenn.; H. M. Bracken, M. D., of Minneapolis, Minn.; P. E. Archinard. M. D., of New Orleans, La.

"Aims of Modern Treatment of Tuberculosis." By Prof. Edwin Klebs, M. D., of Chicago. Discussion by Charles Denison, M. D., of Denver, Col.; C. H. Whitman, M. D., of Los Angeles, Cal.

"Serum Therapy of Tuberculosis." By Prof. S. O. L. Potter, M. D., of San Francisco, Cal. Discussion by Prof. James M. Anders, M. D., of Philadelphia.

"The Therapeutics of Pulmonary Phthisis." By Paul Paquin, M. D., of St. Louis, Mo.

"Tuberculin as a Diagnostic and Curative Agent, with Report of 250 Tubercular Cases Treated." By C. H. Whitman, M. D., of Los Angeles, Cal.

"The Practical Value of Artificial Serum in Medical Cases." By P. C. Remondino, of San Diego, Cal.

"The Use of Remedies in Diseases of the Heart and Blood-vessels." By T. Lauder Brunton, M. D., D. Sc., F. R. S., London, England.

"The Mescal Button." By Prof. D. W. Prentiss, M. D., of Washington, D. C.

"The Modern Intestinal Antiseptics and Astringents." By William Frankhauser, M. D., of New York.

"To What Extent is Typhoid Fever Favorably Modified in Its Course, Duration, Termination or Sequelæ by the Administration of Drugs." By Frank Woodbury, M. D., of Philadelphia, Pa.

"Strychnine," By J. N. Upshur, M. D., of Richmond, Va.

"Methods of Teaching Materia Medica and Therapeutics." By Prof. G. H. Rohe, M. D., of Baltimore.

"The Study of Materia Medica and Therapeutics." By H. M. Bracken, M. D., of Minneapolis, Minn.

"The Great Therapeutic Importance of a Rational Adaptation of Cathartic Remedies to the Physiological Functions of the Gastro-intestinal System." By E. D. McDaniels, M. D., LL. D., of Mobile, Ala.

"Why the Pharmacopœial Preparations Should be Prescribed and Used by the Profession." By Leon L. Solomon, M. D., of Louisville, Ky.

"The Use of Electricity by the General Practitioner." By Caleb Brown, M. D., of Sac City, Ia.

The following have also promised papers, subjects to be announced very soon, together with the day assigned for each discussion and paper:—

Dr. J. E. Atkinson, of Baltimore, Md.; Dr. Henry Beates, of Philadelphia, Pa.; Dr. T. M. Balliet, of Philadelphia, Pa.; Dr. George F. Butler, of Chicago, Ill.; Dr. Dudley W. Buxton, of London, Eng.; Dr. J. Solis-Cohen, of Philadelphia, Pa.; Dr. N. S. Davis, Jr., of Chicago, Ill.; Dr. P. J. Farnsworth, of Clinton, Ia.; Dr. J. E. Moses, of Kansas City, Mo.; Prof. Joseph Remington, of Philadelphia, Pa.; Dr. L. E. Sayre, of Lawrence, Kas.; Dr. H. V. Sweringen, of Fort Wayne, Ind.; Dr. E. L. Stephens, of Fort Worth, Texas.

The chairman will be pleased to receive and place upon the programme subjects for discussion and papers.

JOHN V. SHOEMAKER, M. D.,
Chairman, 1519 Walnut Street,
Philadelphia, Pa.

The Governor of Indiana has decided to let no consumptive die in the Indiana prison if it is possible to pardon him.

Failures of Cerebral Surgery Depending on Incorrect Diagnosis.

Oppenheim calls attention to the fact that meningitis serosa may present the signs of cerebral tumor, and that almost all chronic cases of the former have been diagnosticated as cases of the latter disease. (International Medical Magazine). Recent observations have shown that hemiplegia and aphasia, though usually only transitory or of very abrupt development, may occur in meningitis serosa. Cerebellar ataxia has also been noted in this disease, and the diagnosis between meningitis serosa and cerebellar tumor may at times be impossible. Lumbar puncture has not proven of as great diagnostic value as was expected. The symptoms of tumor may disappear for some time after the removal of some of the cerebro-spinal fluid, and thus cause error of diagnosis Cases of brain-tumor, and especially of cerebellar growth, are reported, in which Quincke's method (lumbar puncture) has caused death. Even Quincke has acknowledged that there is an increase of cerebrospinal fluid and of pressure in temporary conditions, such as hemicrania or other forms of periodic headache. If the acute form of meningitis serosa is really as common as the numerous publications indicate, it must be regarded as comparatively harmless, or else we should be able to observe it much more frequently at the necropsy. Lumbar puncture is not as dangerous in cerebral abscess as was at first feared, and usually permits of the diagnosis of purulent meningitis when the condition exists. Oppenheim speaks of the difficulty of diagnosticating between cerebral abscess and brain tumor when otitis purulenta is present, and reports a case in which he was able to make a correct diagnosis of tumor on account of the normal condition of the pulse and temperature, and the absence of the pathologic changes in the dura at the time of trephining. The aphasic symptoms which were observed in this case usually only when the patient was sitting up, were due to the location of the tumor in the left lower parietal region and supramarginal gyrus. In the upright position the tumor pressed upon the temporal lobe.

In making a diagnosis between cerebral tumor and poliencephalitis the writer states that we must remember that in some cases of tumor the symptoms may disappear, and that in poliencephalitis, somnolence and optic neuritis are not uncommon. In most cases it is impossible to diagnosticate between aneurism of a cerebral artery and any other tumor, and when the former exists lumbar puncture is dangerous. So-called cortical epilepsy and monoplegia are not absolutely safe signs for localization, inasmuch as they occur in tumors of the central ganglia, of the cerebellum, and of the frontal lobe. Tumors of the central ganglia, especially when they grow toward the cortex, may cause Jacksonian epilepsy and monoplegia, but these are neither early nor prominent symptoms. They may also cause monoplegia by compression of the internal capsule (Zeller's case), but it is a monoparesis rather than monoparalysis, and motor symptoms of irritation are absent. Tumor of the frontal lobe produces the motor symptoms by pressure on the central gyri.

Albuminuria in Dyspeptics.

In the March edition of Gaillard's Medical Journal appears an abstract of a paper by Dr. Robin in which he says that to-day every one admits the existence of functional albuminuria; that is to say, albuminuria existing without accompanying lesions. With functional albuminuria it is necessary to include albuminurias of hepatic origin, of nervous origin, of alimentary and dyspeptic origin; it is of the latter variety that Dr. Robin writes. Albuminuria which manifests itself in the course of dyspepsia presents peculiar characteristics which permit its diagnosis not only from Bright's disease but also from other functional albuminurias. The patients in whom this variety of albuminuria is encountered are affected with gastric hyperæsthesia, variable distension of the stomach, increase in the volume of the liver, constipation, and fæcal accumulation in the bowel. They complain of a sensation of weakness and fatigue; they are thin and have vertigo, but never present œdema. If we examine their urine we find sometimes an irregular albuminuria and sometimes a continuous and permanent albuminuria. This undergoes considerable variation according to the diet of the patient. The albumin is composed of serum without globulin. As to the urine, it never contains tubular casts, but a certain quantity of indican and crystals of oxalate of calcium are found. The state of nutrition and the organic and respiratory changes will furnish other signs which will aid in differentiating dyspeptic albuminuria from other varieties. In those affected with this form of albuminuria one finds an increase of the coefficient of oxidation of nitrogen and an exaggeration of organic demineralization and a diminution of pulmonary interchange. Dyspeptic albuminuria has been attributed by most authors to a reabsorption of toxins evolved in the digestive tract. The author does not agree with this idea, but, on the contrary, thinks that this affection is engendered by the passage into the urine of nutrient albumin which has not undergone modifications in the stomach which fit it for assimilation, and thus it acts in a manner as a foreign substance. Alimentary albuminuria can be cured when it is properly treated in the beginning; that is, when it exists only in an intermittent form. When it becomes continuous it is cured only in from thirty to thirty-five per cent. of instances. The treatment is extremely simple and to be based, during the first stage at least, on the state of the digestive tract. Diet forms the prime element of treatment and varies with each case; if there is less albumin with animal diet than with vegetable, animal diet should be prescribed, and vice versa. The diet should be mixed if it is found that there is less albumin under such conditions. It is almost useless to call attention to the fact that it is nearly always necessary to have recourse to a milk diet. This should be suspended if the patient begins to grow thin.

Dangers from Intermarriages.

Dr. Deneffee says that the bad results of consanguinous marriages have been observed since ancient times. (Gaillard's Medical Journal.) In breeding animals the principles of consanguinity have enabled us to emphasize characteristics that would otherwise be lost; it has permitted the creation of certain races, but this consanguinity has no value unless it is governed by those competent to choose their subjects. Without this selection consanguinity in animals gives as bad results as in man. With animals as with men it emphasizes the defects and vices. The selection so easy with animals is impossible with man. In our civilization in these times of alcoholism and neuroses, there are not many families without defects, and heredity also complicates consanguinity. Experience shows us that consanguinous subjects, who seem exempt from all defects, reproduce in their offspring the defects of distant ancestors. It is difficult to get a thorough knowledge of the individuals themselves, and impossible to know much of their ancestors. There are villages in which consanguinous marriages are frequent, and where the race is nevertheless fine and vigorous. Dr. Deneffe gives many absolutely contradictory facts. He refers to the Protestant communities living during the sixteenth century in the midst of Catholics, and forced by this circumstance to tolerate consanguinous marriages. These marriages gave worse results than crossed marriages. The author considers that consanguinous marriages are always dangerous.

Intermittent Fever in Children.

In the October 23d, '97, edition of the N. Y. Med. Journal, Dr. H. B. Sheffield gives his views on this subject as follows:

1. Intermittent fever in children is mostly of the quotidian type; the chill and sweating stage being often massed, it is not infrequently overlooked; the spleen is rarely enlarged if quinine is administered early.

2. Genuine intermittent fever always presents the malarial plasmodium in the blood; its absence is due either to a technical error on the part of the examiner or to the administration of drugs which are detrimental to it.

3. The existence of the varieties of the plasmodium described by some authors as peculiar to quotidian. tertian, quartan, etc., types of the fever is still a subject of great controversy.

4. Infection of malaria is conveyed through the air as well as by water. The mosquito theory of infection seems to be a mere hypothesis.

5. Malarial disease is endemic in most of the larger cities of the North, especially New York; all doubts raised against it are not based upon scientific investigation.

6. Intermittent fever yields promptly to large doses of quinine, a point of considerable value in the diagnosis. Persistency of the attacks may be attributed either to the exhibition of quinine in too small quantities for too brief a period, or to its administration in the form of the mercantile, heavily coated pill, which is as a rule, insoluble and hardly ever enters into the circulation.

Difficulties of the Bacteriological Diagnosis of Diphtheria.

Dr. Spronck has reviewed carefully the literature regarding the true and false diphtheria bacilli. He concludes that:

1. A macroscopic and microscopic examination of the colonies developed on serum are insufficient for a certain diagnosis.

2. Inoculation of an animal is indispensable in all cases of diphtheria, unless severe or during an epidemic.

3. De Martini's criterion that true diphtheria bacilli, whether virulent or so attenuated as to be harmless, will not grow in antidiphtheritic serum, has been proved to be wrong by C. Frænkel and the author. The latter has found that when the hypodermic injection of 2 c.cm. of a recent broth culture does not kill a guinea-pig weighing about 300 g., but causes a more or less marked local œdema, in the great majority of cases one has to do with the pseudo-diphtheria bacillus. To make certain, however, another guinea-pig must be injected with anti-diphtheritic serum. Then if it be injected with 2 c.cm. of the broth culture, and no local œdema occurs, it is an attenuated true B. diphtheriæ; if local œdema is still produced, a pseudo-diphtheria bacillus. The truth of this test invented by Spronck has been confirmed by C. Frænkel. Such attenuated true B. diphtheriæ are common except during epidemics.

4. As regards the short variety of bacillus, it is possible that some may be true B. diphtheriæ. Still the author has never met with a single example of a slightly pathogenic short bacillus which turned out to be so under the anti-diphtheria serum test. As short bacilli are of daily occurrence, that they should be diphtheritic must be, therefore, very rare.

5. Diphtheria is never produced by non-virulent bacilli, such as are commonly found in many mouths. These saphrophytes which may be long or short or of medium length, and resemble exactly the B. diphtheriæ morphologically, belong to several varieties of bacilli quite distinct from Lœffler's.

Curettage in Laryngeal Tuberculosis.

Dr. J. W. Gleitsmann (Medical Record, No. 22, Vol. LII) favors this treatment. He concludes a good article as follows:

1. In cases of primary tuberculous affection without pulmonary complications. In one case, that occurred over eight years ago, he prevented the infection from extending to the lower air-passages and restored the patient to health after a severe and prolonged struggle.

2. In cases of circumscribed ulcerations and infiltrations of the larynx.

3. In cases with dense hard infiltrations of the arytenoid region of the posterior wall, also of the ventricular bands and in tuberculous tumors of the epiglottis.

4. In the incipient stage of pulmonary disease with little fever and no hectic symptoms.

5. In advanced pulmonary disease, with distressing dysphagia resulting from infiltration of the arytenoids, as the quickest means of giving relief.

Curettage is contraindicated in:

1. Advanced pulmonary disease associated with hectic symptoms.

2. Disseminated tuberculosis of the larynx.

3. Extensive infiltrations producing severe stenosis, when tracheotomy is indicated. or laryngotomy may be thought of.

4. Timid, distrustful patients lacking the necessary nerve-power.

In cases where curettage was either objected to or considered inappropriate, submucous injections of lactic acid have given the author satisfactory results.

Aseptolin-Edson.

No reaction, such as follows the administration of tuberculin, is observed after the injection of Aseptolin-Edson, nor is there any visible physiological action noted following an injection of 250 minims given to a man weighing 150 lbs., except that the urine passed subsequently, reacted strongly to tests made to ascertain the presence of phenol, and traces of phenol were noted in the condensed vapor of the breath, and in the contents of the stomach drawn off through the oesophageal tube within three hours of injection.

The effect of the solution, when injected into the organism of a patient suffering from disease caused by active germ infection, is to directly inhibit bacterial development, and consequently to diminish the production of poisonous bacterial products. Its beneficial effects are so quick and positive in the great majority of cases as to convince anyone who uses it of the correctness of this conclusion. Phenol and pilocarpinphenate both stimulate glandular activity and exert a physiological effect in this direction over the range in which they act synergistically. It follows, therefore, that the remedy stimulates the production of the leucocytes.

Experience certainly has taught us that stomach derangement in the cases of phthisis, if not speedily remedied, very quickly results in the death of the sufferer. It is right here that an enormous advantage is claimed for the treatment. It enables the physician to save the stomach for alimental purposes alone, and by giving easily digested, rapidly assimilated and highly nourishing food, a very great factor is a favorable result is secured.

Aseptolin should be injected into the abdominal parieties or into the subcutaneous tissues of the back under and about the scapulæ. An antitoxin syringe, or a small aspirating syringe holding two drachms is well adapted for its use. Aseptolin being of about the same density as Majendie's solution of morphine, a small needle, such as is used for the latter solution, should be used. The antitoxin needle which accompanies the antitoxine syringe should not be used, as by reason of its large size it causes unnecessary suffering, and is liable to produce severe irritation.

The needle should be inserted well under the skin, the point being directed away from the median line. The point should not pierce the muscular tissue, nor even the fascia covering the muscle, lest the injection cause a nodule. This nodule, beyond possibly being a tender spot, and annoying the patient, however, will gradually disappear and do no harm. It but rarely results from injection, carefully given, and is then due to abnormal irritability of the tissues.

Dr. J. M. Hays of the Board of Medical Examiners of the State of N. Carolina in writing to Dr. Edson says: "I feel constrained to report to you the almost magical effects of your new treatment for tuberculosis in my hands. In one of my cases the patient had been confined to bed for months with several large cavities in left lung and decided bronchitis in right, temperature several degrees above normal all the time, complete anorexia, insomnia, and great pain, sputa laden with bacilli of consumption. Indeed I had told the husband that his wife was scheduled to die in May at the latest. I followed your directions closely, and to-day, after two weeks of treatment with Aseptolin and a week since last hypodermic (both vapor and spray having been continued), she has normal temperature, met me at the door with a smile, is free from pain, cough decidedly better, eats more than any other member of the family, sleeps well and the cavities are almost quite dry. The bronchitis is better, lung is entirely well. The cough is due to chronic pleurisy.

Her neighbors and friends think a miracle has been wrought, and she would certainly never have left her bed alive but for this treatment, I feel sure."

How Typhoid may be Spread.

A very remarkable example of how easily typhoid fever may be spread is given in the case of a serious outbreak of the disease which took place at Plymouth, Pa. (The Therapist). The origin of this disastrous epidemic was traced to a single typhoid patient whose *dejecta* was thrown out upon the snow of a frozen hillside, at the base of which ran a small stream, whence the town water supply was ultimately drawn. Several weeks elapsed, during which the *dejecta* were hard frozen before the March thaws permitted the melting snows to wash them into the stream below; but during this interval the typhoid germs had retained their vitality and full complement of virulence, as demonstrated by the otherwise unaccountable outbreak of typhoid fever in the said town. Various investigations have shown that the typhoid bacillus can stand being frozen; indeed, it has been found that three months' continuous freezing does not destroy the germs.

The Old-Time Doctor.

The following extract is taken from the book "Old New England" by Alice Morse Earle and illustrates the doctor of the old school in a life like manner:

"I like to think of the rich and pompous old doctor a riding out to see his patients, clad in his suit of sober brown or claret-color with shining buttons made of silver coins. The full-skirted coat had great pockets and flaps, as had the long waist-coat that reached well over the hips. Knee breeches dressed his shapely legs, while fine silk stockings and buckled shoes displayed his well-turned calves and ankles. On his head he wore a cocked hat and wig. He owned and wore in turn wigs of different sizes and dignity—ties, periwigs, bags and bobs. His portrait was painted in a full-buttoned wig that rivalled the Lord Chancellor's in size; but his every-day riding-wig was a rather commonplace horse-hair affair with a stiff eel-skin cue. One wig he lost by a rather mysterious accident while attending a patient who was lying ill of a fever, of which the crisis seemed at hand. The doctor decided to remain all night, and sat down by the table in the sick man's room. The hours passed slowly away. Physician and nurse and good wife talked and droned on; the sick man moaned and tossed in his bed, and begged fruitlessly for water. At last the room grew silent, the tired watchers dozed in their chairs, the doctor nodded, bringing his eel-skin cue near the flame of the candle that stood on the table. Suddenly there was heard a sharp explosion, a hiss, a sizzle; and when the smoke cleared, the terrified occupants of the room collected their senses, the watcher and wife were discovered under the valence of the bed; the doctor stood scorched and bareheaded, looking around for his wig; while the sick man, who jumped out of bed in the confusion and captured the pitcher of water, drunk one-half of its contents, and thrown the remainder over the doctor's head, was lying behind the bed curtains laughing hysterically at the ridiculous appearance of the man of medicine. Instant death was predicted for the invalid, who, strange to say, either from the laughter or the water, began to recover from that moment. The terrified physician was uncertain whether he ought to attribute the conflagration of his wig to a violent demonstration of the devil in his effort to obtain possession of the sick man's soul; or to the powerful influence to some conjunction of the planets; or to the new fangled power of electricity which Dr. Franklin had just discovered and was making so much talk about in Philadelphia at that very time. The doctor had strongly disapproved of Franklin's reprehensible and meddlesome boldness, but he felt that it was best, nevertheless, to write and obtain the philosopher's advice as to the feasibility, advisability, and best convenience of having one of his new lightning-rods rigged up his medical back, and running thence up his wig, thus warding off further alarming demonstrations. Ere this was done the mystery of the explosion was solved. When the doctor's new wig arrived from Boston, he ordered his newly purchased negro servant to powder it well ere it was worn. He was horrified to see Pompey give the wig a liberal sprinkling of gun-powder from the powder horn, instead of starch from the dredging-box, and the explosion of the old wig was no longer assigned to diabolical thaumaturgical or meteorlogical influences."

Gastric Ulcer.

The Record of New York, for January 15, 1898, contains the following from the pen of Dr. Van Lenbe:

"Rest in bed, hot poultices, Carlsbad water. The poultices should be very hot and changed every ten minutes. The pain disappears in about five days; then Priessnitz bandages should be substituted for the hot poultices. Strict regulation of the diet. Surgical treatment should be resorted to under the following circumstances: 1. When there are repeated hemorrhages which make the patient anæmic. It depends on the nature of the individual case whether an operation should be performed or not when there has been only a simple profuse hemorrhage, for it may be so abundant that surgical aid comes too late. On the other hand, patients often recover from the acute anæmia caused by a single hemorrhage. 2. When long-continued medical treatment has proved ineffective to relieve the pains, gastro-enterostomy may be tried. 3. When there is perigastritis caused by adhesion of the stomach to other organs, especially when a subphrenic abscess has formed. 4. When there are perforation of the ulcer and an opening into the abdominal cavity. The chances of a perforated ulcer healing are of course very small."

Jas. V. Tabor, M. D., Hodgdon, Maine, writes:

It affords me pleasure to speak of Cord. Ol. Morrhuæ Comp. (Hagee) as ahead of all Cod-liver Oils and Emulsions that I have ever prescribed. It is really a cordial for young and old; and from the happy combination of its therapeutic properties, it imparts benefit in every case for which it is recommended.

Appendicitis.

Dr. Darling (Ulster Medical Society) related the history of a recent case of suppurative appendicitis, which, he said, raised most of the points at present in controversy. The patient was operated on and made a good recovery from the immediate effects of the operation, but died some weeks subsequently from acute dilatation of the stomach. The special points in the case were: (1) A history of repeated attacks prior to the one which was the immediate occasion of the operation. (2) The evidence afforded by the *post-mortem* examination that these successive attacks had led to adhesion of the appendix and occlusion of its lumen, then to perforation of an abscess limited by adhesions, and then escape of matter to another abscess, these various stages in the progress of the disease being associated with attacks of illness of ever-increasing severity. (3) The apparently almost complete recovery after each attack, although there evidently remained so much disease. The only sign which remained in the intervals between the attacks was tenderness at McBurney's point. (4) The evident inadequacy of careful dieting after the disease had reached a certain point. (5) The recovery from the immediate effects of a prolonged and difficult operation and subsequent sinking from the acute dilatation of the stomach. Speaking regarding the subject generally he was inclined to think that when a second attack had taken place further recurrence was to be feared, and the question of operation should be faced. The results of Treves and others showed how safe the operation was in skilful hands. He believed that a large proportion of the cases of acute peritonitis arising suddenly were due to rupture of a suppurating appendix. It was especially in recurring cases that operation should be pressed upon patients.

At the Twelfth International Medical Congress, in the Section of Surgery, August 23. 1897, Professor Credé, of Dresden, reported in substance as follows: (Deutsche Medicinische Wochenschrift, October 28. 1897, p. 211.) After long experimentation he had found that the Citrate of Silver best fulfilled the conditions required of an antiseptic for the treatment of wounds. His opinions and the results that he had obtained by the method had been published, and were well known. Credé then considered the use of Silver in certain infectious diseases. The fact that the Citrate of Silver greatly diluted is soluble in the serum of the blood and is non-poisonous, suggested to him the possibility of its use for the disinfection of the body. The subcutaneous injection of 0.5 gram ($7\frac{1}{2}$ grains) of Lactate of Silver occasioned aseptic necrosis of tissue; hence silver could not be used in that form. After overcoming many difficulties Credé succeeded in obtaining a metallic silver preparation which was permanently soluble both in water and in albuminous fluids. When this preparation is inuncted in the form of a salve for from 15 to 30 minutes, it gets into the lymphatic channels and circulates dissolved in the body. In sterile lymph and sterile blood it remains in the condition of metallic silver. In the presence of pathogenic germs or of toxines it enters into some as yet unknown combinations, and acts either as a bactericide or as an antitoxic agent. The use of the silver preparation causes no local changes. Credé and the physicians associated with him treated over 100 cases affected with the most varied septic diseases with the remedy. The first inunction was made in the evening, and the second upon the following morning, and no other measures were employed during this time. The amount of the salve used in the adult was as a rule 3 grams (45 grains;) for boys 2 grams (30 grains,) and for little children 1 gram (15 grains.) The inunctions were practiced upon a part of the body far removed from the site of the disease. Lymphangites, phlegmons, septicæmias, phlegmonous anginas, and septic complications of scarlatina and diphtheria were treated. In all these cases a remarkably favourable effect was apparent in from 5 to 30 hours. The general condition improved; the fever fell within 24 hours; and rapid retrogression of the septic process set in. Almost hopeless cases rapidly improved. In cases of erysipelas the mixed septic infection got well, though the skin lesion persisted. Credé believes that the preparation is a remedy of the greatest importahce, being capable of disinfecting the entire body; and affirms that it is one that has never failed him in septic cases.

Gestation—Accidents Prevented.

The rule of many physicians is to administer Dioviburnia in teaspoonful doses, four times a day one week before the time for periods, during the last three months of gestation. Experience has convinced them that Dioviburnia not only prevents miscarriage, but also facilitates parturition. To obtain satisfactory results great care should be taken to avoid substitution by always indicating "Dios" and sending your prescriptions to only such Druggists as would not be guilty of this nefarious business.

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IS EARNESTLY RECOMMENDED as a most reliable FOOD for INFANTS, CHILDREN and Nursing-Mothers;— for INVALIDS and Convalescents;—for Delicate and Aged persons. It is not a stimulant nor a chemical preparation; but a PURE, unsweetened FOOD carefully prepared from the finest growths of wheat, ON WHICH PHYSICIANS CAN DEPEND in FEVERS and in all gastric and enteric diseases. It is easily digested, nourishing and strengthening, assists nature, never interferes with the action of the medicines prescribed, and IS OFTEN THE ONLY FOOD THE STOMACH CAN RETAIN.

IMPERIAL GRANUM SEEMS TO HOLD FIRST PLACE IN THE ESTIMATION OF MEDICAL OBSERVERS.—*"The Feeding of Infants," in the New York Medical Record.*

IT CONTAINS NO TRACE OF ANY IMPURITY.—*The Lancet, London, England.*

A valuable aid to the physician in the treatment of all the graver forms of gastric and enteric diseases.—*The Prescription.*

As a food for patients recovering from shock attending surgical operations IMPERIAL GRANUM stands pre-eminent.—*The International Journal of Surgery, New York.*

Not only palatable, but very easily assimilated.—*The Trained Nurse, New York.*

IMPERIAL GRANUM is acceptable to the palate and also to the most delicate stomach at all periods of life.—*Annual of the Universal Medical Sciences, Philadelphia, Penna.*

Endorsed by the best medical authorities in this country.—*North American Practitioner, Chicago, Ills.*

It has acquired a high reputation, and is adapted to children as well as adults—in fact, we have used it successfully with children from birth.—*The Post Graduate Journal.*

It has steadily won its way, step by step until it now stands unchallenged at the head of all food preparations.—*The Medical Council, Philadelphia, Pa.*

Especially valuable in fevers, and often the only food the stomach will tolerate in many gastric and enteric diseases.—*Dominion Medical Monthly, Toronto.*

There is no better prepared food.—*The Medical Mirror, St. Louis, Mo.*

It enjoys so widespread an endorsement from the medical profession that its reputation is beyond dispute.—*American Medico-Surgical Bulletin, New York.*

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It is peculiarly adapted to most of the diseases of infancy and childhood that have originated in the use of improper food.—*The St. Louis Medical Era.*

It is one of those rare preparations that never disappoint—but is all that is claimed for it— *Maryland Medical Journal, Baltimore, Md.*

IMPERIAL GRANUM has stood the test of many years, while many competing foods have come and gone, and have been missed by few or none. But it will have satisfactory results in nutrition far into the future, because it is based on merit and proven success in the past.—*The Pharmaceutical Record, N. Y.*

★ 'Physician's-samples' sent free, express-paid, to any physician—or as he may direct. ★

JOHN CARLE & SONS, Wholesale Druggists, 153 Water Street, NEW YORK CITY, N. Y.

On the Use of Xeroform in the Treatment of Skin and Venereal Diseases.

Dr. Heinrich Paschkis (Wiener klinische Rundschau, 1897, No. 42). One of the most important improvements in the treatment of ulcerations of all kinds is the use of remedies in the powdered form. The absence of necessary preparation and the ease of application have given it a permanent place, more especially in the ambulent treatment of the diseases of the skin and the sexual system. I am pleased to admit that the latest and cheapest of these powdered remedies, Xeroform, has entirely fulfilled all the demands that were made of it. I have used it in over 100 cases of the most varied kinds, including ulcerations of all sorts, eczemas, and various other skin diseases.

The mode of application was very simple. After cleansing the surface of the ulcerations with a wad of cotton the Xeroform was dusted on with a camel hair brush, two to four layers of absorbent gauze placed over it, and the whole when necessary dressed with cotton and a bandage. Bandaging was dispensed with when the ulcerations were seated upon the glans, the inner surface of the prepuce or the sulcus coronarius. Burns were dressed in exactly the same way. In eczemas and other skin diseases the excoriated areas were either treated in the same manner, or they were first powdered with the Xeroform and then covered with an indifferent salve or Lassar's paste.

The following cases were treated :

1. Ulcerations of the genitals, including lesions remaining after opening of suppurating lymphatic glands...... 62
   Time of treatment up to cicatrization 4 to 43 days.
2. Herpes, zoster, and balanitis......... 5
   Time of treatment up to cure, 4 to 11 days.
3. Eczema.............................. 6
   Time of treatment up to cure, 8 to 22 days.
4. Chancre.............................. 7
   Time of treatment up to cicatrization 13 to 20 days.
5. Ulcers of the leg. 5
   Time of treatment up to healing, 7 to 30 days.
6. Burns....... 4
   Time of treatment up to cicatrization 6 to 108 days.

The action of the drug throughout was a very satisfactory one. Necrotic venereal ulcerations, as well as simple ones of the legs in similar condition cleaned off very rapidly. Healthy granulations sprang up rapidly even in deep ulcerations, and cicatrization advanced daily. Erosions and superficial losses of tissue closed up within a few days at an astounding rate; and the same occurred with the exulcerated initial lesions. Naturally the latter sometimes remained depressed and hard after the ulceration had entirely ceased. Specially valuable characteristics of the Xeroform seemed to be that it had no caustic action at all, and never caused the formation of crusts that retained the secretions. It is this latter quality, in my opinion, that rendered the occurrence of suppurative adenitis such a rarity.

Treatment of Chronic Ulcers of the Legs.

According to the Medical News of New York Longscorff has treated over 200 ulcers of the leg without a single failure, by means of the following method: The leg is rubbed with green soap, washed and dried. The ulcers are then dusted thickly with calomel, which is stirred to a paste with a wet cotton swab. Fine salt is then dusted upon the paste, and is in turn mixed with it. By this means corrosive sublimate is formed, which in its nascent state acts very energetically, and for three or four hours causes a strong burning sensation, which in a nervous patient may require a morphine injection. On the following day the granulations are completely burned off and there is presented a clean wound, with possibly a small slough in its center, which soon separates. Pain has entirely disappeared. Under a stimulating salve containing turpentine, and with as complete rest in bed as is possible, the ulcer is quickly covered with epithelium. Only occasionally is it necessary to touch excessive granulations with a crystal of cupric sulphate. It sometimes happens that the ulcer partially closes, and then the healing process comes to a standstill. In these cases a solid salve is spread upon a visiting card and bound firmly upon the ulcer. From the effect of the moisture the callosities quickly dissolve, and the growth of epithelium is resumed. In only two cases of the series were Thiersch grafts found necessary. After healing is complete the leg and foot are covered with zinc salve as high as the knee. This dressing is left in position two weeks. A good effect is also produced by this treatment in eczema of the lower extremities, associated with numberless minute granulating ulcers. In these cases the calomel and salt are mixed to a paste and spread upon the leg, which has previously been scrubbed with green soap and water to remove all fat from the ulcers.

In cuts, burns, eczema, bruises, blisters, abrasions, chilblains, bromidrosis, circumcisinn, indolent ulcer, use Unguentine.

Practical Evidence.

I used your sample of Resinol on myself for Pruritus Ani, which has been my curse for several years, defying all applications. The first application proved efficacious, and I am now using and prescribing Resinol for the above and several other itching troubles. In fact, I think it is the best remedy I have ever used for the diseases for which it is recommended.
H. B. LEIGHTON, M.D., Boston, Mass.

I have used your Resinol in Inflammatory Rheumatism with happy results. Hope others will try it. I know they will be pleased.
E. J. BURNSIDE, M. D., Phila., Pa.

It gives me pleasure to say that Resinol is the best application for local treatment of Eczema I have ever used. I can also bear testimony to its efficacy in Erysipelas, and its soothing and healing virtues in all inflamed surfaces.
A. S. FRENCH. M.D., Lawrence, Mass.

It is but just that I should attest my satisfaction with the use of Resinol. It is a marvel of efficacy in Pruritus Ani. In relief of soreness, due to scalding from acute Nasal Coryza, it acts like a charm.
J. H. THOMPSON, M.D., Goshen, N.Y.

Resinol is by far the best application I have ever used in a practice of 48 years for the diseases recommended. A case of Eczema commencing on the scalp and extending over the entire face and which had been under the treatment of various physicians with no apparent benefit, was completely cured by it in less than two weeks.
J. J. WORTHY, M.D., Lavalle, Wis.

I am very much pleased with the effects resulting from the use of Ung't Resinol in cases of Itching Piles, Pruritus Ani, and Vulvae, Eczema, Erysipelas, &c. In fact it is the remedy "par excellence" in all cases where there is a Congested or Hyperaemic condition of the capillary Blood Vessels.
C. D. SMITH, M.D., Atlanta, Ga.

I frequently prescribe Resinol, and am well pleased with its work. It has proved very useful in many forms of eruption of the skin, and especially so in Pruritus Vulvæ or Ani, and in Eczema of other parts of the body.
LUCY HALL BROWN, M.D., Brooklyn, N. Y.

I take pleasure in stating that I have found Unguentum Resinol almost a specific for Pruritus Ani, Itching Piles and Marginal Eczema.
HENRY HUG, M.D., Detroit, Mich.

Resinol is a harmless antiseptic and a true skin anæsthetic, absolutely non-irritant and non toxic (free from lead, mercury, or cocaine), can be applied to mucous, excoriated or denuded surfaces of any extent at any age without fear of untoward results, and is not contra-indicated by any internal medication that may be deemed advisable.

Resinol is put up in *one ounce* jars at 50 cts. each, and can be obtained at any drug store.
Sample sent **free** on application, or **one** regular size jar for trial on receipt of 25 cents.

RESINOL CHEMICAL CO., Baltimore, Md.

Premature Burial

In a *brochure* just issued, Dr. David Walsh (The Therapist) discusses the question of "Premature Burial—Fact or Fiction," and the conclusions he arrives at are of interest. In no single case he contends, has it been shown that the signs of death, if properly tested, are fallacious as a whole. Neither has it been proved that any case of live burial has ever taken place when ordinary skilled precautions have been taken to prevent such an occurrence. Furthermore, he holds that the mass of reported cases of premature burial in books and journals is worthless from the point of view of exact evidence. At the same time he admits that there is a remote possibility, hardly amounting to a probability, that in some instances a body might be prematurely buried; especially where hasty burial was necessary, as in hot countries, upon battlefields, and in time of plague. But the crux of the matter is contained in Dr. Walsh's main general conclusion, that the theory of frequent premature burial is unsupported by exact evidence; in other words, it occupies the position of a mere popular belief or fable. In this conclusion, those who read the evidence he adduces in support of his contentions will readily concur.

The One of Many.

Among the testimonial letters received from physicians by the manufacturers of Imperial Granum, is one in which they take even more than usual pride, and from which we quote as follows:—"I am sending you a photo. of my little two-year old boy, who has been raised nearly altogether on Imperial Granum. He was very delicate, and we had a great deal of trouble with him owing to his weak digestion, and I feel that your Imperial Granum saved his life. He never tires of it, and it is the only one of the many prepared foods that seems to agree with him."

Samples of this justly celebrated dietetic preparation are sent to physicians on request.

In view of the fact that Cod-liver Oil in its crude, refined or emulsified form induces atony of the digestive organs, and hypertrophy of the gastric and intestinal mucous membranes, it is evident that the easily digestible and assimilable Hagee's Cordial-containing as it does the true active princi, ples of the oil, is the most eligible succedaneum for this oil.

Neurectomy for Tic-Douloureux.

Bernays' "Report of a Surgical Clinic," complimentary to the Members of the Mississippi Valley Medical Association, contains the following, in reference to his patient's condition and treatment before neurectomy for tic-douloureux was decided upon :—

"Case V.—The patient, aet. 50, white, female. Family history: Has one sister who suffered from emotional insanity ; otherwise the family history is good. Previous health excellent. The present trouble begun with a severe neuralgic toothache, localized in the right lower molars. Paroxysms of pain were of daily occurrence, and most severe in the mornings about breakfast time. The pain subsided temporarily whenever the teeth were pressed firmly together or upon any substance held between them, but only to return when the pressure was withdrawn. The presence of anything cold in the mouth immediately produced the most exquisite pain ; moderate heat producee a soothing effect. After two months, the pain became continuous, and four molars were extracted without any way relieving it. On the contrary, the pain increased in severity until October when it ceased entirely for a period of two weeks, and then returned as severely as before. Another tooth sacrificed, but without relief ; the pain became continuous until last June when it again subsided for a period of six weeks. A recurrence then took place together with an involvement of the parts supplied by the second branch of the fifth nerve. Pain has been constant until the operation. She had strenously avoided the use of narcotics, but during the most active periods of pain, antikamnia in ten grain doses was found to be an efficacious obtunder." After describing the neurectomy, Prof. Bernays says: "Eight weeks have now elapsed since the operation,and no recurrence of the trouble has taken place."

The Treatment of Endometritis.

One of the chief aims of treatment in cases of endometritis is to employ measures which will contact the distended vessels in the mucous membrane of the uterus, to re-establish normal circulatory conditions, and thus favor the absorption of exudates in the tissues. These cases often come under the observation of the general practitioner at a time when a cure can be accomplished by efficient topical medication, without the necessity of resorting later to curelting or the application of caustic application to the uterine mucosa. Formerly, medicated vaginal tampons were much employed for this purpose, but recently a more convenient, agreeable and serviceable means has been presented to the profession, in the form of a wafer. Micajah's Medicated Uterine Wafers combine all the advantages of the medicated tampon with a number of special properties. They are much more readily applied than the Tampon, so that part of the treatment can be intrusted to the patient ; and their application is therefore to be preferred both on the score of cleanliness and convenience. Aside from these obvious advantages, however, they are composed of ingredients, all of which exert an antiseptic, alterative, and healing effects upon the inflamed uterine mucous membrane. Under their continued use the congestion gradually subsides ; the engorged vessels assume their normal calibre; the mucous secretions disappear, and exudates are absorbed. But even in cases where the process is so far advanced that operative measures are called for, the Medicated wafers will be found an extremely valuable adjunct in the treatment.

An Antiseptic Having Special Adhesive Power.

In the Year Book of Treatment for 1897, published by Lea Bros. & Co., Dr. Nester Tirard, Professor of Materia Medica and Therapeutics, Kings College, London, gives an interesting summary of the therapeutics of the previous year. As regards Europhen the following occurs : "Europhen (Therap. Monatsh.) has been recommended by Saalfeld as an iodoform substitute. It possesses a faint saffron like odor and it contains 28.1 per cent of iodine. It is permanent in the dry state, but on contact with water and especially with alkaline fluids, it liberates small quantities of iodine even at the ordinary temperatnre. It is claimed for this substance that it is non-irritating and non-toxic. Saalfeld employs it together with lanoline and talc for intertrigo and he states that it has special adhesive power which is an advantage after sacrification of acne pustules and naevi. Inasmuch as the odor is slight and the drug possesses no unpleasant after effects it may possibly be a valuable substitute for iodoform.

No matter how great may be the ability of the practitioner as a diagnostician, the patient receives no advantage if the preparations administered are of indifferent quality ; and if, as the result of substitution of imitation goods, the outcome of a given case is unsatisfactory, the physician will be blamed, not the druggist. See that your prescriptions are filled as written.

LISTERINE

The Standard Antiseptic.

LISTERINE is a non-toxic, non-irritating and non-escharotic antiseptic, composed of ozoniferous essences, vegetable antiseptics and benzo-boracic acid.
LISTERINE is sufficiently powerful to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.
LISTERINE has ever proven a trustworthy antiseptic dressing for operative or accidental wounds.
LISTERINE is invaluable in obstetrics and gynecology as a general cleansing, prophylactic, or antiseptic agent, and is an effective remedy in the treatment of catarrhal conditions of every locality.
LISTERINE is useful in the treatment of the infectious maladies which are attended by inflammation of accessible surfaces—as diphtheria, scarlet fever and pertussis.
LISTERINE is especially applicable to the treatment of scarlet fever, used freely as a mouth wash, or by means of the spray apparatus.
LISTERINE is extensively prescribed in typhoid fever both for its antiseptic effect and to improve the condition of the stomach for the reception of nourishment.
LISTERINE agreeably diluted, is prescribed with very good results, in the treatment of diphtheria, both as a prophylactic and curative—internal antiseptic—agent.
LISTERINE is used extensively with good results in the treatment of whooping cough.
LISTERINE diluted with water or glycerine speedily relieves certain fermentative forms of indigestion.
LISTERINE is indispensable for the preservation of the teeth, and for maintaining the mucous membrane of the mouth in a healthy condition.
LISTERINE employed in a sick room by means of a spray, or saturated cloths hung about, is actively ozonifying and imparts an agreeable refreshing odor to the atmosphere.
LISTERINE is of accurately determined and uniform antiseptic power and of positive originality.
LISTERINE is kept in stock by the leading dealers in drugs everywhere.

Lambert's Lithiated Hydrangea.

Close clinical observation has caused LAMBERT'S LITHIATED HYDRANGEA *to be regarded by Physicians generally as a very valuable* RENAL ALTERATIVE *and* ANTI-LITHIC AGENT.

ALBUMINURIA.
BRIGHT'S DISEASE,
CYSTITIS,
DIABETES,
GOUT,
HÆMATURIA.
LITHÆMIA.
NEPHRITIS.
RHEUMATISM.
URINARY CALCULUS.
and all forms of
VESICAL IRRITATION.

For Descriptive Literature, Address

Lambert Pharmacal Co.,

ST. LOUIS.

Cleanliness in Catarrhal Affections.

One of the fundamental principles in the treatment of catarrhal troubles of the nose and throat may be summed up in a single word, "Cleanliness." To permit secretions to remain on the surface of the inflamed mucous membranes is to increase the existing irritation and delay the healing process. The retained mucus and crusts form a fertile soil for the growth of microbes, and, after undergoing decomposition, act as severe irritants. It follows, therefore, that means should be taken to remove these inflammatory products and keep the mucous membrane as clean as possible. All rough manipulation should be avoided—the object is not to scrub off the mucus and crusts, which are often quite firmly adherent, but to dissolve them and wash them away. For this purpose an alkaline, antiseptic solution, such as Bensolyptus (Schieffelin) is especially indicated. Experience has shown that an alkaline fluid is not only the best solvent for mucus, but also exerts a soothing effect upon the inflamed mucous membranes. In Bensolyptus these beneficial effects of the alkaline ingredients are supplemented by its antiseptic and anti-catarrhal properties, in consequence of which it arrests all growth of microbes and facilitates the process of healing. In the various forms of rhinitis, pharyngitis and tonsilitis, Bensolyptus has proved an important auxiliary in the treatment by promoting cleanliness, allaying irritation and preventing bacterial infection.

Bensolyptus is the outcome of careful experiments made in the laboratory of Schieffelin & Co., to produce an ideal alkaline, antiseptic fluid; and the high reputation enjoyed by the products of this firm for over a century renders any further comment unnecessary.

A New Method of Local Anæsthesia.

Since the discovery of the anæsthetic properties of cocaine, its sphere of usefulness has constantly broadened, and it has become one of the most serviceable drugs in the every day practice of the physician. Recently attention has been directed to a new method of employing cocaine, the aim of which is to facilitate its use and render it more safe and efficient. In devising this method three objects have been kept in view: (1) To secure an absolutely pure grade of cocaine, free from all by-products; (2) to do away with ready made solutions which are liable to decomposition and then lose their potency and become irritating; (3) to dispense the cocaine in such a form that fresh solutions of any desired strength can be prepared at a moment's notice.

To accomplish these objects it has been found advantageous to employ the cocaine in the form of discoids, each of which contains a definite quantity of the drug, without any excipient whatever. The amount of cocaine-hydrochlorate in each discoid is accurately determined by weight, and in consequence of their ready solubility, the discoids dissolve in a few drops of water. The physician, therefore, always has at hand the material for preparing fresh cocaine solutions, of any percentage strength desired. Thus, for instance, if he wishes to make use of a few drops of a 4 per cent. solution, all that is required is to dissolve a one-fifth grain discoid in five minims of water, while larger quantities can be prepared in the same way. By proceeding in this manner, the physician is always informed as to the amount of the drug he is using in any given case, and unpleasant, or serious effects are thus reduced to a minimum. For the induction of local anæsthesia in minor surgery, dentistry, diseases of the eye, ear, nose, and throat—in short wherever there is any indication for the use of cocaine—the cocaine discoids will be found the most eligible method of securing the beneficial effects of this remedy.

These discoids are prepared by Schieffelin & Co. who were the first to make cocaine in this country, and, as is well known, their name has long been identified with the manufacture of high class pharmaceutical products. Every means is taken by them to produce absolutely pure cocaine and to secure uniformity and accuracy of weight in the preparation of the discoids.

Compound Tincture of Benzoin in the Treatment of Enteric Fever.

In a communication to the British Medical Journal, Dr. James C. Potter states that he has obtained decidedly beneficial results from the use of benzoin in the treatment of this disease. He commences by giving five minims of the compound tincture in water, every two hours, and if the diarrhea is not controlled in twenty-four hours he doubles the dose. As a result, the diarrhea decreases, the stools are not so offensive, and there is a decided lowering of temperature with a sensible promotion of the patient's comfort.

The success in these cases is attributed—

1. To the internal antiseptic property of the drug.
2. The mixture serves as a protection to the inflamed bowel.
3. The antipyretic action of the drug.

The Quarterly Special to the Denver Meeting of the American Medical Association.

For several years it has been the custom for a special train to be run out of Chicago to the places of meeting of tbe American Medical Association, under the auspices of the Journal of the Association, and known as the "Journal Train." Those who have had the good fortune to go by this train have been loud in their praises of their treatment at the hands of those in charge, and of the pleasure at being in a doctor's special train.

This year, in June, the American Medical Association meets in Denver, and there is every indication that the visiting members and their friends will be royally entertained. The great draw-back to making this trip is the railroad fare, but the assurance that the rate will not exceed one fare for the round trip, and the liberal allowance of a thirty-day limit, will make the trip worth the taking.

The Quarterly Special will be run from St. Louis west to Denver, arrangements being made with all the eastern, southeastern and southern lines to connect at this point, selling through round trip tickets via Special from St. Louis to Denver. In this way the two trains will not conflict, but the Quarterly Special will really be run as an adjunct to the Journal Train. Besides the attractive program assured by the local committee, both of scientific and social character, there is much to be seen in Denver, and the surrounding Colorado scenery is incomparable.

Another feature which will be much appreciated by all who go by the Quarterly Train is the arrangement whereby passengers can stop on their return, inside the thirty-day limit, at Omaha, the "Enchanted City," where the Trans-Mississippi and International Exposition will be open. Arrangements are already far advanced, plans have been definitely adopted, and the work of construction is being vigorously performed in all departments. The plans have been arranged on an elaborate scale of architecture for all the principal buildings of the Exposition, which are ranged on either side of the Grand Canal.

Facing the Plaza, directly inside the main entrance, is the Fine Art Building, in the shape of a parallelogram, the long axis being parallel to the Grand Canal. It is 246 feet long and 130 feet wide.

The Machinery and Electricity Building is located on the northeast corner of the Grand Court, being east of the Mine Building and across the lagoon from the Manufacturers' Building. There are triple entrances on the main floor level in the center of the main front, and similar groups in the centers of the east and west fronts, with four emergency exists in the north wall. The entire building will be a series of yellow and ivory tones, growing more intense as they reach the top, culminating in the dull golden statuary full of primitive vigor which surmounts the building and symbolizes its use.

Train loads of building material of all kinds, machinery, and other supplies are daily unloaded on the grounds, convenient to the buildings. In every direction hundreds of mechanics and laborers are busily employed hastening the exposition work to completion.

One point to be noticed is the success of the designers in keeping free from the influence of other expositions. The plan of grounds, the grouping and design of buildings, the scheme of color, are all wholly different from any former achievement.

A visit to Omaha alone would fully repay one for the trip west.

Of the Colorado scenery volumes could be written; and here are reproduced a few cuts of choice bits. Of the resorts which are noted in this section none are more deserving of praise than Glenwood Springs, Colorado. It is in the very heart of the Rocky Mountains, readily accessible by rail from the East and West. Here one gets pure air, picturesque scenery, healthful surroundings, and the marvelous hot springs which have given the place its great fame. The elevation of the springs is 5,758 feet, the same as Denver, and the town stands at the confluence of the mountain streams, the Roaring Fork and Grand River, and is about equi-distant from Denver and Salt Lake City. Near at hand is the remarkable canon of the Grand River.

Arrangements will no doubt be made for every one to visit the place who is in attendance on the meeting.

Further information in regard to the Quarterly Special can be had by addressing the Quarterly Special, Box 434, Louisville, Ky. A complete itinerary will be mailed on application.

Hagee's Cordial of Cod-Liver Oil Comp. may be prescribed irrespective of the condition of the digestive organs, or the season. It can be administered without difficulty, and it has a decided advantage in being entirely devoid of any fishy or greasy flavor and so readily taken by the most sensitive patient.

Fruits in Fevers.

Fruits, especially in the form of fruit juices, are a most convenient and certainly the most appropriate of all foods. It is now almost universally recognized that beef tea and meat preparations of all sorts should be wholly proscribed in cases of fever, as the patient is already suffering from the accumulation of waste matters to such a degree that the addition of even the small amount contained in beef tea or a small piece of meat, may be sufficient to give rise to an exacerbation of the disease and lessen the patient's chances of recovery.

German physicians make great use of preparations of fruits in fevers, particularly of fruit soup, which is made by boiling for some time one part of dried fruit of some sort with four or five parts of water. In cases in which considerable gastro-intestinal irritation exists, the soup or decoction thus prepared should be carefully strained, so as thoroughly to remove the skins and all other extraneous matters. The juice of oranges, grapes, raspberries, blackberries, huckleberries, tamarinds, currants, or cranberries may be added to water as a beverage in fevers. Thus used, they do not only increase the quantity of water which the patient is enabled to drink, by giving to it a distinct and agreeable flavor, but also aid the elimination of poisons with which the system is struggling, by a slight diuretic action. Fruit juices used in the same way are likewise highly beneficial in Bright's disease and other forms of kidney disease in which it is desirable to increase and maintain the flow of urine. The grape fruit, the lime, the shaddock, and the pomegranate also afford agreeable acid juices which may be used in the same manner. The antiseptic value of fruit juices must also be recognized as a positive benefit in these cases.

Diet in Catarrh of the Stomach.

The Dietetic and Hygenic Gazette gives the following suggestions regarding the proper diet in this disease:

1. Milk, cold or warm; boullion; beef-tea prepared cold. To one pound of beef, put up in pieces the size of dice, add twenty ounces of distilled water and ten drops of dilute hydrochloric acid. Let stand in refrigerator twenty-four hours; strain and season to taste, and, if desired, warm, but not enough to make cloudy.

Peptonized milk; zwiebach not sweetened, biscuits, rusk, toast; natural Seltzer and Vichy waters, carbonic water.

2. Soft boiled or raw eggs; rice or sago boiled soft in milk; clear soups; puree of potato; vermicelli or "noodle" soups; raw oysters.

Boiled, roasted. stewed, or broiled calves' brains, sweetbreads, pigeons, chickens.

No vegetables except those mentioned to be allowed with soups.

No "wheaten grits," hominy, barley, oatmeal.

3. "Minced" or finely-cut boiled ham, and rare beefsteak.

Coffee and tea. Articles under 1 and 2 as advised.

4. Rare roasted beef and veal, especially cold; roasted chickens, and pigeons without sauces, especially cold; venison; partridges, woodcock, and snipe, not too fresh; boiled fish; white bread (stale); macaroni; baked apples; fruit jellies; a very small amount of butter, otherwise no fats at any time; only dry wine; no beer; no ale or porter.

Rye whiskey or brandy, diluted with waters mentioned, may be used with luncheon and dinner when pronounced necessaries.

Transmission of Typhoid Germs by the Atmosphere.

According to the Journal d' Hygiene, recent experiments have proved that the typhoid germ can be transmitted by the atmosphere. The germ preserves its vitality a considerable time, not only in damp surroundings, but in others apparently dry, such as linen, wood, earth, dirt, and refuse. By the process of desiccation the greater part of the bacilli perish. A few however escape, and these may become a source of danger, not only by being transmitted by the surrounding air, but also because imperceptible fragments containing them, by being brought into contact with the buccal mucous membrane,either from fingers, food, etc., produce infection.

Excessive Treatment in the Disorders of Infants.

In an article upon "Excessive Treatment in Disorders of Infants," the specialist in pediatrics, Neumann of Berlin, gives the following warnings (Med. Age):

1. Do not bathe the infant, and thus remove the vernix caseosa, which is itself aseptic. The first bath should be given after the naval wound has healed.

2. Avoid too much cleansing of the mouth of the infant by rubbing and scrubbing it out.

3. Refrain from scarifying the gums with the idea that dentition is a pathologic process.

HYDROZONE

(30 volumes preserved aqueous solution of H_2O_2)

IS THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER.
HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

GLYCOZONE

(C. P. Glycerine combined with Ozone)

THE MOST POWERFUL HEALING AGENT KNOWN.

These Remedies cure all Diseases caused by Germs.

Successfully used in the treatment of Diseases of the Nose, Throat and Chest:

Diphtheria, Croup, Scarlet Fever, Sore Throat, Catarrh of the Nose, Ozœna, Hay Fever, LaGrippe, Bronchitis, Asthma Laryngitis, Pharyngitis, Whooping Cough, Etc.

Send for free 240-page book "Treatment of Diseases caused by Germs," containing reprints of 120 scientific articles by leading contributors to medical literature.

Physicians remitting 50 cents will receive one complimentary sample of each, "Hydrozone" and "Glycozone" by express, charges prepaid.

Hydrozone is put up only in extra small, small, medium and large size bottles, bearing a red label, white letters, gold and blue border with my signature.

Glycozone is put up only in 4-oz., 8-oz. and 16-oz. bottles, bearing a yellow label, white and black letters, red and blue border with my signature.

Marchand's Eye Balsam cures all inflammatory and contagious diseases of the eyes.

PREPARED ONLY BY

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Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France).

Charles Marchand, 28 Prince St., New York.

Sold by leading Druggists. Avoid imitations. ☞ Mention this Publication.

ARE YOU GOING TO THE

DENVER MEETING

OF THE

American Medical Association?

If so, you should bear in mind the **SPECIAL** train which will be run from St. Louis and points east and southeast thereof under the auspices of

MATHEWS' QUARTERLY JOURNAL OF RECTAL AND GASTRO-INTESTINAL DISEASES.

Arrangements will be made with all connecting lines into St. Louis to sell through tickets to Denver and return, joining the SPECIAL at that point. Here they will arrive in the magnificent **NEW UNION STATION,** the largest and handsomest in the world, and embark upon the SPECIAL in the same Station. The advantage of this is obvious. Through Sleeping Cars will be run from many Eastern cities to Denver without change. Reduced rates beyond the expectation of the committee will no doubt be in force. This will undoubtedly be the greatest trip in the history of the Association. The advance information from the local committee at Denver assure the hospitality of not only the city, but of the State at large.

Don't make your plans positively until you have learned more of the SPECIAL, which can be done by addressing

THE QUARTERLY PECIAL,

BOx 434. LOUISVILLE, KY.

The Use of Opium in the Diarrheal Diseases of Children.

F. M. Crandall (Archiv. of Ped.) offers the following as contra-indications for opium in children:

1 In the early stages of an acute diarrhea, before the intestinal canal is cleansed.
2. When the passages are infrequent and have a bad odor.
3. With a high temperature or cerebral symptoms.
4. When its use is followed by an increase of temperature or by more offensive passages.

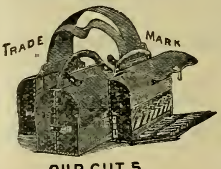
Per contra, opium is indicated: (1) When the passages are frequent and painful, or (2) large and watery; (3) in dyspeptic diarrhea, with castor-oil or a saline; (4) in late stages, when the passages are small, frequent, and nagging; (5) when much food passes undigested, the bowels acting as soon as food is taken.

Many times diarrhea is a conservative process, and opium serves but to prevent the elimination of toxic materials from the intestine. When indicated the dose should be only sufficient to relieve pain and check peristalsis; it should be prescribed separately, in order that it may be given only as often as necessary, the effect of one dose partially subsiding before another is administered, this rarely occurring in less than four hours.

The Phosphates of Iron, Soda, Lime and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals. (See page 268.)

WANTED—TRUSTWORTHY AND ACTIVE gentlemen or ladies to travel for responsible, established house. Monthly $65.00 and expenses. Position steady. Reference. Enclose self-addressed stamped envelope. The Dominion Company, Dept. V., Chicago.

Marshall's Convertible.



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No 32 BOTTLE.

DOCTOR

Can not know his past lost cash, time and convenience except, right now; if he asks, we mail our free catalogue, illustrating full line best Vial, Hand: Gynecological and Cabinet Bags, giving bottom $ and cent prices, including Convertibles.

Ask DR. W. SCOTT MARSHALL,
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5625 Jackson Ave. CHICAGO, ILL.

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Dr. Lauder Brunton, at a recent meeting of the London Medical Society, suggested that abdominal section was not only of benefit in abdominal tuberculosis, but also in certain cases of pulmonary disease, and he related a case in which a a lady in an advanced stage of phthisis, with a large cavity in one lung, had insisted upon undergoing abdominal section for the relief of attacks of pain, with the result that not only was the abdominal condition relieved but the lungs improved, and she had since recovered a fair condition of health, (British Medical Journal). On operation they had simply found, as he expected, some tuberculous thickening, and the peritoneum was studded with tubercle. He admitted that it was a difficult matter to offer any explanation of these cases, but he suggested that possibly the admission of air to the abdomen induced certain changes in its albuminous contents which had for effect to lead to the production of an antitoxin on a large scale. He suggested that the time might come when they would open the abdomen not only for the relief of abdominal tuberculosis, but with the idea of benefiting phthisis. He alluded to a very troublesome class of cases in which patients complained of pain in the abdomen which came on in the early morning, giving rise to a suspicion of adhesions of the sigmoid. In the case of a medical man under his observation, the pain was so severe that the patient insisted on the abdomen being opened, when adhesions were found, but on the opposite side to the pain. There had been no return of the symptom, but the case was as yet too recent for any definite conclusion to be drawn.

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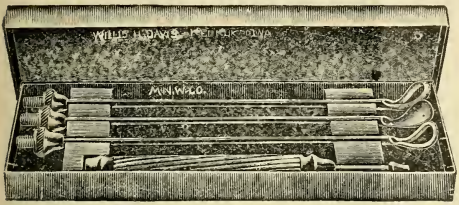

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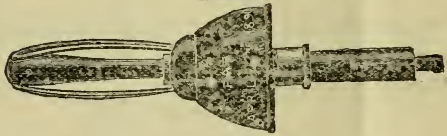

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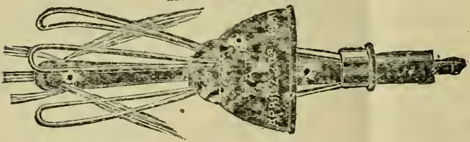

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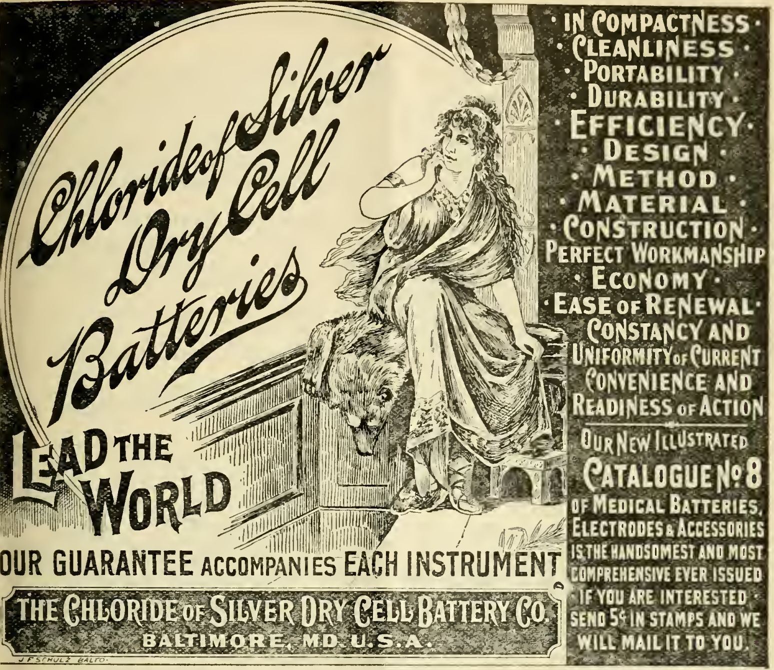

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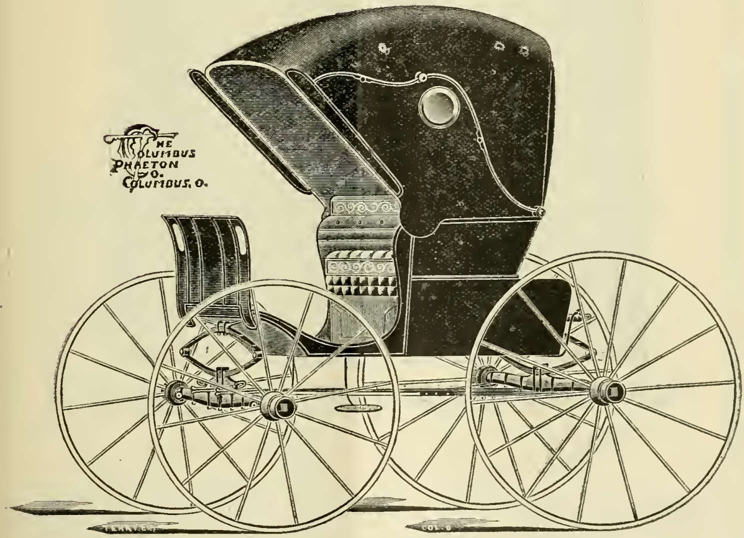
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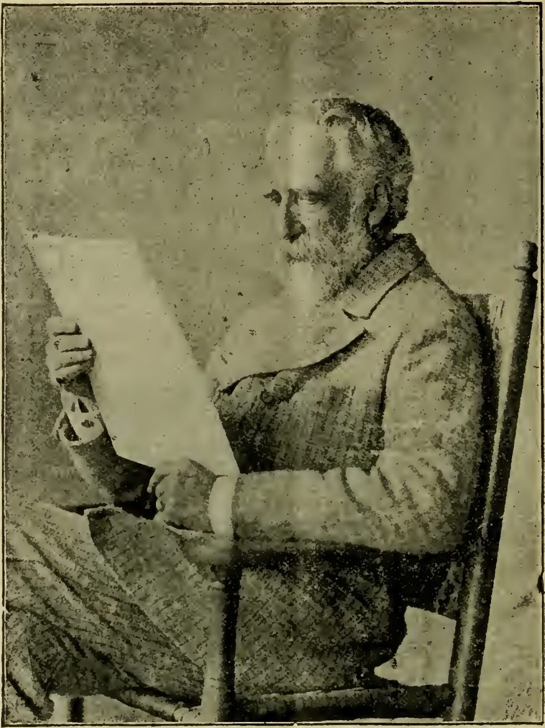

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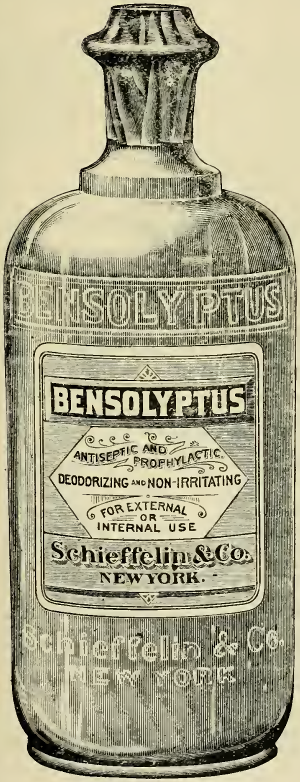
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It is supplied in two strengths, viz.:

in 5 c.cm. vials, equivalent to 500 antitoxic normal units (single strength), white label (A), at - - - - - - - - - - - - - **$1.00 per vial**

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This expression is familiar to all physicians. Perhaps nine out of every ten patients requiring Cod Liver Oil tell the same story. The thought of fishy, greasy, nauseating emulsions make them shudder. Still, Cod Liver Oil must be taken in some shape; there is no substitute for it. But there is ONE form that is better than others; ONE that contains ALL the active constituents of Cod Liver Oil (taken from the oil) —that form is

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☞ Each fluid ounce represents 33 per cent. pure Norwegian Cod Liver Oil with 6 grains hypophosphite of lime and 3 grains hypophosphite of soda.

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Tasteless Syrup of Amorphus Quinine, (Lyons.)

NEVER PRODUCES Sick Stomach nor unpleasant Head Symptoms.

ALWAYS PRODUCES the same therapeutic effect as Sulphate of Quinine.

It is the active principle of Amorphous Quinine, teaspoonful equals two grains of the Sulphate.

Specially adapted for Children and also for Ladies who dislike to take capsules and who complain of the Sulphate hurting their head.

PHYSICIANS often wish to make palatable tonics for their female and youthful patients and will here find some excellent combinations.

MALARIAL TONIC.

Febriline Tasteless Syrup Quinine (Lyons)	℥ iv
Fresh Simple Syrup,	℥ iv
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Dose one to two teaspoonfuls.

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Frebriline Tasteless Syrup Quinine (Lyous)	℥ iv
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Dose one to two teaspoonfuls.

Tonic, Alterative and Laxative.

Frebriline Tasteless Syrup Quinine (Lyons)	℥ iv
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Dose one to two teaspoonfuls.

FOR LA GRIPPE.

Febriline Tasteless Syrup Quinine (Lyons)	℥ iv
Syr. Dover's Powders	iv

Dose one to two teaspoonfuls.

Febriline will combine Antifebrin, Antikamnia or any powder, syrup, or fluid extract which does not contain acid or alcohol. Acids and alcohol in any form or quantity, will develop the bitter taste.

Samples sent free by mail.

PARIS MEDICINE CO.,

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A Remedy in Nervous Disorders when Characterized by Melancholia.

—Mode of Exhibition.—

The "Reference Book of Practical Therapeutics," by Frank P. Foster, M. D., Editor of *The New York Medical Journal*, which has recently been issued by D. Appleton Co., of New York City, contains an article of which the following is an excerpt, which we feel expresses the consensus of medical opinion as adduced by actual results: "Antikamnia is an American preparation that has come into extensive use as an analgetic and antipyretic. It is a white, crystalline, odorless powder, having a slightly aromatic taste, soluble in hot water, almost insoluble in cold water, but more fully soluble in alcohol.

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"As an antipyretic it acts rather more slowly than antipyrine or acetanilide, but efficiently, and it has the advantage of being free, or almost free from any depressing effect on the heart. Some observers even think that it exerts a sustaining action on the circulation. As an analgetic it is characterized by promptness of action and freedom from the disagreeable effects of the narcotics. It has been much used, and with very favorable results in neuralgia, influenza and various nervous disorders characterized by melancholia. The dose of antikamnia is from three to ten grains, and it is most conveniently given in the form of tablets."

We may add, that the best vehicles, in our experience, for the exhibition of antikamnia are Simple Elixir, Adjuvant Elixir or Aromatic Elixir, as also brandy, wine or whiskey. It can also be readily given in cachets or capsules, but preferably tablets, as well as dry on the tongue in powder form, followed by a swallow of water. When dispensed in cachets or capsules it should be put into them dry. Antikamnia tablets should be crushed when very prompt effect is desired and patients should always be so instructed. The conditions of the stomach frequently present unfavorable solvent influences and they can be thus overcome.

—*Notes New Pharm. Products.*

In Pneumonia where there is Restlessness.

℞ Antikamnia (Genuine)........................ ʒ ij
Tinct. Digitalis................................ ʒ iss
Syrup Doveri.................................. ℥ iij

Mx. Sig.:—Teaspoonful every 3 to 6 hours.

In Painful Dysmenorrhœa.

℞ Antikamnia (Genuine)........................ ʒ j
Brom. Potass.................................. ʒ ij
Elix. Aurantii................................ ℥ ij

Mx. Sig.:—One or two teaspoonfuls every hour in water.—*Dunglison's Clinical Record.*

Constipation.

Constipation is the "bete noir" of the home; regarded by physicians as being probably the most potent factor in causing and inviting other diseases. A remedy which will help the doctor to educate the members of the families under his care, in the direction of a regular habit as regards the evacuation of the bowels, is desirable. "Syrup of Figs," as furnished to the medical profession and to the public, seems to the practising physician to be almost an ideal domestic or family laxative.

The California Fig Syrup Co. have frankly announced that their product, "Syrup of Figs," has, as its most energetic laxative agent, the active principle of Alexandria senna, which is the best senna in the world. "Syrup of Figs" is simple, safe, and reliable as a laxative; does not irritate or debilitate, does not disturb digestion, and favors the regularity of habit, so much to be desired.

It is particularly to be recommended for ladies and children, although helpful in all cases where a laxative is indicated.

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"Syrup of Figs" is never sold in bulk. It retails at fifty cents a bottle, and the name of "Syrup of Figs," as well as the name of the "California Fig Syrup Co.," is printed on the wrappers and labels of every bottle.

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POSITIVE RESULTS

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., and the disturbances attending the Menopause.

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THE STANDARD SEDATIVE

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DOSE—ONE TO TWO FLUID DRACHMS IN WATER, THREE TIMES PER DAY.

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EACH FLUID DRACHM CONTAINS

Arsenici Iodidum,	1-24 grains.
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In Secondary and Tertiary Syphilis this preparation is considered by all the leading authorities on the subject to be the best. It should be given in teaspoonful doses, three or four times a day, and continued for several months.

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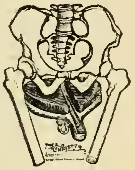

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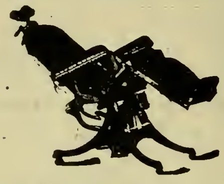

Fig. V.—Semi-Reclining.

1st. Raised by foot and lowered by automatic device.—Fig. I.
2d. Raising and lowering without revolving the upper part of the chair.—Fig VII.
3d. Obtaining height of 39½ inches.—Fig. VII.
4th. As strong in the highest, as when in the lowest position. —Fig. VII.
5th. Raised, lowered, tilted or rotated without disturbing patient.
6th. Heavy steel springs to balance the chair.
7th. Arm Rests not dependent on the back for support.—Fig. VII—always ready for use; pushed back when using stirrups—Fig. XVII—may be placed at and away from side of chair, forming a side table for Sim's position—Fig. XIII.
8th. Quickest and easiest operated and most substantially secured in positions.
9th. The leg and foot rests folded out of the operator's way at any time—Figs. XI, XV and XVII.
10th. Head Rest universal in adjustment, with a range of from 14 inches above seat to 12 inches above back of chair, furnishing a perfect support in Dorsal or Sim's position.—Figs. XIII and XV.
11th. Affording unlimited modifications of positions.
12th. Stability and firmness while being raised and rotated.
13th. Only successful Dorsal position *without moving patient.*
14th. Broad turntable upon which to rotate the chair, which cannot be bent or twisted.
15th. Stands upon its own merits and not upon the reputation of others.

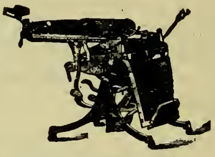

Fig. XVII—Dorsal Position.

Pronounced the *ne plus ultra* by the Surgeon, Gynæcologist, Oculist and Aurist.

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SANMETTO FOR GENITO-URINARY DISEASES.

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A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN
PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—
CYSTITIS—URETHRITIS—PRE-SENILITY.

DOSE:—One Teaspoonful Four Times a Day. OD CHEM. CO., NEW YORK.

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Contains the Essential Elements of the Animal Organization—Potash and Lime;

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And the Vitalizing Constituent—Phosphorus; the whole combined in the form of a syrup with a **Slightly Alkaline Reaction.**

It Differs in its Effects from all Analogous Preparations; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties by means of which the energy of the system is recruited.

Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE--CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, **finds that no two of them are identical,** and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution,** and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. **Fellows.**"

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IN LA GRIPPE

behaves as a stimulant as well as an **Antipyretic and Analgesic** thus differing from other Coal-tar products. It has been used in the relief of rheumatism and neuralgic pains, and in the treatment of the sequelæ of alcoholic excess. AMMONOL is also prepared in the form of salicylate, bromide, and lithiate. The presence of Ammonia, in a more or less free state, gives it additional properties as an expectorant, diuretic, and corrective of hyperacidity.—*London Lancet*

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Wheeler's Tissue Phosphate.

Wheeler's Compound Elixir of Phosphates and Calisaya. A nerve food and nutritive tonic for the treatment of Consumption, Bronchitis, Scrofula and all forms of Nervous Debility. This elegant preparation combines in an agreeable Aromatic Cordial, acceptable to the most irritable conditions of the stomach: Say Bone Lime Phosphate, Soda Phosphate, Iron Phosphate, Phosphoric Acid, and the active principles of Calisaya and Wild Cherry.

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NOTABLE PROPERTIES: As reliable in Dyspepsia as Quinine in Ague. Secures the larger percentage of benefit in Consumption and all Wasting Diseases, by determining the perfect digestion and assimilation of food. When using it, Cod Liver Oil may be taken without repugnance. It renders success possible in treating chronic diseases of women and children, who take it with pleasure for prolonged periods, a factor essential to maintain the good will of the patient. Being a Tissue Constructive, it is the best general utility compound for tonic restorative purposes we have, no mischievous effects resulting from exhibiting it in any possible morbid condition of the system.

DOSE:—For an adult, one tablespoonful three times a day, after eating; from seven to twelve years of age, one dessertspoonful; from two to seven, one teaspoonful; for infants, from five to twenty drops, according to age. Prepared at the Chemical Laboratory of

T. B. WHEELER, M. D., Montreal, P. Q.

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The curative principles of COD LIVER OIL dispensed in capsules, each of which possesses the therapeutical activity of one teaspoonful of the Oil.

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MORRHUOL has all the medicinal properties without the oily repulsiveness of Cod Liver Oil, and is therefore to be preferred in the treatment of **pulmonary catarrhs, scrofula** and **incipient consumption.** It promotes **appetite** and **nutrition, induces refreshing sleep,** and may be easily taken by children and adults in the form of capsules.

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MORRHUOL CREOSOTÉ has all the above properties—plus the merits of pure creosote, from which the caustic and obnoxious properties of commercial creosote have been eliminated.

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Robinson's Elixir Paraldehyd.

HYPNOTIC, SEDATIVE, ANODYNE. DIURETIC.

INDICATIONS: SLEEPLESSNESS, IRRITABILITY, NERVOUSNESS, HEADACHE, COLIC, ETC.

IN doses of 45 grains. it calms restlessness and insomnia. and procures unbroken sleep of from four to seven hours duration, leaving behind neither languor, nausea, nor digestive disorders.

It is proposed as possessing the good without the evil qualities of Chloral.

Our Elixir contains 45 grains of the Paraldehyd in each fluidounce, dissolved in an aromatic menstruum whereby the objectionable taste of the chemical is to a great extent disguised, and the preparation rendered palatable.

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Hypophosphites with Wild Cherry Bark, A very Valuable Combination.
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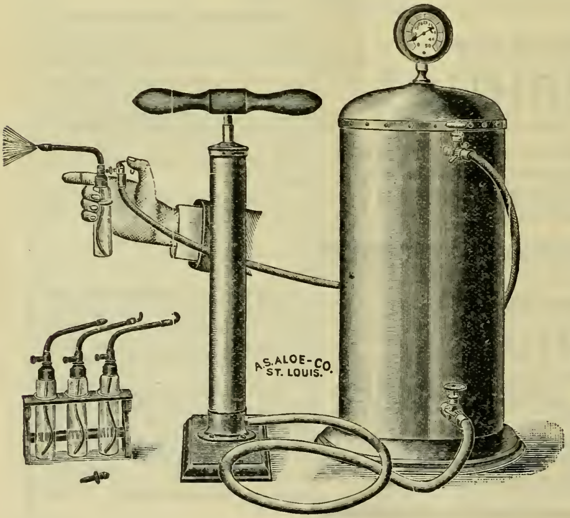

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The Charlotte Medical Journal.

Vol. XII. CHARLOTTE, N. C., APRIL, 1898. No. 4.

The Use of Cathartics in Typhoid Fever.*

By E. C. Register, M. D., Charlotte, N. C.

My reasons for presenting these few suggestions, regarding the use of cathartics in typhoid fever, are the evident and numerous objections, both clinical and theoretical, to the present tendency to use this class of medicines too continuously and indiscriminately in every case of typhoid fever, regardless of the strength of the patient, the amount of tympany present, their probable cause of hemorrhage and the tendency to increase rather than diminish the peristaltic exercise of the diseased glands, besides the certainty that under their influence the absorption of the typhoid bacillus is often facilitated and the conditions favorable for their development are in many cases increased.

The immense value of the eliminative measures now advocated is unquestionable; but is it not possible that in the second and third stages of this disease, when certain conditions and complications may be present, that it is possibly unwise to resort to their use without carefully considering their indications and probable bad effects in each and every case?

While I have entertained for several years, when dealing with this disease, a desire to use rather freely eliminative medicines, I have always regarded their appropriate application a question often hard to decide.

I do not mean of course during the first week of the fever, when the bowels should be thoroughly and repeatedly evacuated. This is a universal and certainly a proper practice; but during the ulcerating and healing process of Peyer's Patches, we have entirely different pathological conditions to deal with; conditions where complications begin to develop, where alarming symptoms are anticipated and where medicine will do the most good or the most harm.

Purgative medication in these stages is, in my opinion, only indicated in the following conditions: If we have any reason to believe that the patient has been improperly fed, and that undigested particles of food or fecal deposits are undergoing decomposition, in the alimentary canal, producing flatulency and possibly auto-infection, or further, if we have reason to believe that these conditions are not present, and the tympany and symptoms of auto-infection persist, we should evacuate the bowels, with the hope of removing the muco-purulent accumulation, which is always more or less present in typhoid fever, the result or product of the inflammation and ulceration.

After we have removed this accumulation, symptoms of auto-infection, high fever, nervousness, insomnia and tympanitis usually continue, and are often aggravated and increased by any form of cathartic medication.

When we are dealing with a case with these symptoms, and with this history, we know that we are contending with conditions not amenable or favorably influenced by this plan of treatment, and that the tympany is not due to these causes but to nerve weakness, loss of cell function, the need of stimulation and the correction of these purely nervous manifestations.

Just how this accumulation of gas takes place and the various causes contributing to it, is still a question; but the most plausible, as I have already intimated, is a form of paralysis or paretic state of the intestines; or as it has been suggested it may be due to the opposite, an excited, confused action of the muscular structure of the intestines.

It has occurred to me that it may be due to either, because it is often observed that the bowels in this complaint, and of this stage especially, are unusually susceptible to purgatives; or on the other hand, they may and often do, fail to act entirely, except when very large doses are given.

At any rate when we are called upon to treat cases of this kind, we are in the habit of regarding tympany, under these circumstances, as a grave manifestation, a complication, or symptom, that is difficult to correct and any line of treatment favoring frequent evacuations is likely to be injurious, rather than beneficial.

My reasons for making this assertion is based upon practical conclusions only, disregarding entirely the teachings and writings of some of our best men.

As I have already said the value of the eliminative treatment in typhoid fever is unquestionable, but it should be used cautiously, and only in exceptional cases should it be used after the first week of the fever, then the behavior of each case under its influence should govern us in its administration.

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*Read before the Charlotte Medical Society.

Sometimes they increase the fever, the tympany, hemorrhage, prostration and dryness of the tongue. In addition to this they muddy the complexion, another evidence that they cripple nature's efforts to protect itself against the invasion of these accumulated impurities of the digestive tract.

In these cases, as I have stated, they are not, of course, indicated. On the other hand, I have used them when these symptoms were all more or less benefitted.

With the exception of the conditions that I have already pointed out, we don't know in every case what effect to anticipate when we administer cathartics in typhoid fever, but should let each case be a rule within itself.

It is in all probability that it is the excited, confused state of the muscular structure of the intestines referred to above that cathartic medicines aggravate, and the paretic state that they benefit.

This is of course theoretical and a notion of my own, based upon the fact that a tendency to diarrhœa, with considerable rumbling of the bowels, bear cathartics badly and are benefitted the most with medicines with an opposite effect, opium or some of its forms.

I have intimated that a proper regard for the strength of the patient is often overlooked when the remedies under consideration are given.

There is nothing even in health more exhausting than the effects of frequent evacuations of the bowels, and in diseases, especially those effecting the alimentary canal, it is a symptom often productive of much harm, and, if not properly guarded against, it produces an unnecessary drain upon the system and a waste of vitality that is often needed later on.

The erroneous idea that offensive stools is an indication for cathartics, originated with the theory that poisonous accumulations in the bowels, if left alone would be absorbed, producing an auto-infection. This is a plausible idea and one that I have always been rather in sympathy with, but actual clinical observation has taught me that there are less evidences of absorption, fewer signs of auto-infection when the bowels are in a quiet state than when active.

The character of the stools or their odor does not necessarily modify this rule. Even in perfect health the alimentary canal contains not only bacteriologic but chemical products, and when absorbed produce sickness. They are, however, seldom absorbed. Nature has wisely provided a means of protection, and it is these same protective influences that we depend upon in disease as in health.

Every element of these influences is purely functional, and is dependent upon a proper nerve action. It is to this nerve disturbance that we should direct our attention, when treating typhoid fever and not resort too hurriedly to cathartics.

Since the eliminative treatment in typhoid fever has become so popular and extensively employed, the question as to just how and to what extent it influences the typhoid bacillus, its growth, protection and destruction, has been generally and thoroughly discussed, but no different conclusions have yet been reached.

There have been, however, several facts pointed out that lead us to believe that it does not eliminate the bacilli to any great extent, or prohibit their growth to any perceptible degree.

The prevalent idea that the local ulcers are the birth place of the bacillus, that the number of bacilli in the body is dependent upon the extent of the characteristic local lesion, is of course a mistake, yet it is responsible, in part at least, for the extensive employment of the Woodbridge Treatment.

If we consider carefully the manner in which the bacillus enters the system, its behavior in the blood, its effects on the lymphatic system, its action on the nerve centers, its way of producing fever, and its presence in every organ and fluid of the body, and that by the seventh day, as a rule, its virulence and impression upon the system has reached its maximum, we can arrive at a fairly correct idea as to the exact benefits to be derived from a plan of treatment, the main object of which is to cleanse the Peyer's Patches.

The effort to disinfect these ulcerating surfaces is commendable and scientific, but to undertake to do it with eliminative medicine that does not also contain a disinfecting action, is unwise, unscientific and calculated to do harm.

Calomel in small doses fulfills both of these indications, and I believe that when the bowels need moving, when we have reason to expect that the characteristic ulcerations are present, it should be done with this drug.

The last point that I will consider, and which is by far the most important connected with this subject, is the probable relation between the use of cathartic medicines and hemorrhage from the bowels. Some time ago, when Dr. Misenheimer presented his valuable paper to this Society, on typhoid fever, this subject was very intelligently discussed and, with one or two exceptions, it was considered unwise to cause the bowels to act, especially with medicines, for several days after a hemorrhage.

I was in sympathy with this prevalent idea. but was rather surprised that the attention of the Society was not called to the fact, that if it was the proper thing to cause frequent evacuations of the bowels just before the hemorrhage, in order to be consistent, why not carry out the same plan after a hemorrhage? The conditions in the bowels are exactly the same.

I have always believed that the oftener the bowels act, especially when artificially produced, the greater the tendency to hemorrhage. Clinical experience confirms this belief, and theoretically it is certainly plausible.

The physiological effects of all cathartics tend more or less to act by exciting peristalsis. This increased and unnatural action of the muscular structure of the intestines was formerly considered one of the prominent causes of hemorrhages in typhoid fever and this belief would have continued uninterrupted if the idea of disinfecting Peyer's Patches, and the desire to cleanse the alimentary canal had not assumed this high place in therapeutics.

Indications for the Use of the Forceps in the Second Stage of Labor.

At the meeting on March 7th, 1898, of the Buncombe County Medical Society, Dr. J. A. Watson makes an appeal for the more liberal use of the forceps in hastening the completion of the second stage of normal but tedious labor. He says that Playfair has laid down as a general principle that when we are convinced that the natural efforts of the patient are failing, or unlikely to effect delivery except at a cost of long delay, it is far better to interfere soon than late, and thus prevent the occurrence of serious symptoms accompanying protracted labor. These are the views of a distinguished teacher expressed twenty-five years ago, and were at that time considered a radical advance over the views entertained by his predecessors, who held that the forceps were only to be used in the event of all other known methods having failed, or where death was imminent. During these twenty-five years the advances of science have removed many of the restrictions that were very justly put upon the liberal use of the forceps, and has made it possible for us to use with perfect safety to mother and child these valuable aids in the obstetric art. Dr. Watson says that under no circumstances would he advocate that the forceps be applied for economizing the physician's time, nor does he wish to be understood as in any way advocating the indiscriminate and reckless use of the forceps, but he claims that by the application of antiseptics to obstetric practice, the perfect methods at our command for repairing injuries to the perineum and pelvic floor, and the control of shock and dread obtained through the use of chloroform, are justifiable grounds for an advance in the use of the forceps far beyond that which was held to be the limit in so recent a period as Playfair's time.

He says, "In applying the forceps to these cases, in my judgment, it is not necesssary to look for the signs of exhaustion, or to be convinced that the natural powers of the patient will be insufficient to end her labor, but it should be enough that the patient has suffered a reasonable number of hours already in her efforts to complete her labor, and that we have at our hand a perfectly safe and easy means of affording her instant and painless relief."

Dr. Watson claims that all hyperesthetic subjects should be chloroformed before the forceps are applied, and that the physician should pass a catheter into the bladder himself to see that it is empty and not leave it to the care of a nurse. Many grave injuries to the bladder may thus be avoided.

In summing up Dr. Watson says that the application of the forceps in the second stage of labor, when the child's head has passed out of the cervix, is pressing upon the perineum laying in the oblique or conjugate diameter, is an exceedingly simple operation, and that with a reasonable knowledge of the architecture of the pelvis and of the mechanism of labor all such cases requiring the application of the forceps at all, by reason of undue delay, ought to be brought to a speedy and successful termination. And therefore it is our duty as physicians, with knowledge and skill beyond that of midwives to rescue our patients from all unnecessary suffering in their labor.

DISCUSSION.

Dr. W. C. Brownson.—I agree with Dr. Watson that after a case drags on hour after hour, and the woman becomes worn out and has given up all hopes, that the forceps should then be used, but just so long as the woman is getting along nicely and I feel sure she is able to complete a natural labor, then I think it unwise for the forceps to be used. As a general rule the physicians are not as careful as they should be, and there has been many cases of septic infection that might have been avoided had the physician taken the necessary precautions as to antiseptics. And in regard to chloroform I think the forceps could be used in many cases without, and the attending physician does not like to push it to complete anæsthesia unless he has some physician present, and when the patient is only partially anæsthetized she is likely to struggle and cause more damage to be done than if the chloroform had never been used.

Dr. J. A. Reagan, of Weaverville, N. C.—My experience has been that it is only necessary to use the forceps about once in one hundred cases, and I can say that during my practice I have only used the forceps, perhaps, as often as a dozen time, and I have had no reason to use them any oftener. When you find a woman exhausted, or gone into a state of unconsciousness, I then think the forceps should be used. I remember a case occurring several years ago, where a lady married and had been hearty during her pregnancy. When her time was up a physician was called and remained with her eighteen days, and on the nineteenth day I was called for consultation. On making a very careful examination, I found a ring surrounding the neck of the uterus, which seemed to be fibrous in character, being about one-fourth in diameter. I at once took a bistoury, and wrapping it up to the point with a piece of cloth, I then passed the instrument gently up by my finger. I made incisions in four places. The child was at once delivered, being a very large dead boy. The mother recovered nicely. I saw the lady not long since, and she told me she had given birth to four other children, and that they were all living and in a healthy condition.

Dr. M. H. Fletcher.—I wish I knew some rule to follow in applying the forceps. I think you are apt to have tears high in the vagina, and in many of these cases you are apt to have sepsis following. I think after a case has gone from one to three hours, and the head does not advance, I then believe in using forceps. I think in many cases where you deliver a primipara that in her following labors she will give up all hopes of delivery by her own efforts, saying she cannot undergo labor without the use of the forceps. I give chloroform to profound anæsthesia always before using forceps.

Dr. C. L. Minor.—I am glad that Dr. Watson has chosen this subject, though not because I find myself in accord with his views. It is an unfortunate fact that in these days the chief indications for the use of forceps seem to be the impatience of the doctor and the convenience, not the necessity of the woman, and as a consequence many lives of mothers, and more especially of children, have been sacrificed. In Dublin and Vienna, both noted centers of obstetrical teaching, I am glad to say that early and unjustified interference is strongly opposed, though there is no hesitation in the use of forceps when proper indications exist, and no woman is allowed to die from tardiness of help when powers fail or obstruction is too great. Forceps there are regarded as an invaluable aid, but are recognized as dangerous, especially when prematurely used and are classed as necessary evils. The fact is almost too well known to need restatement, that the percentage of puerperal infections is much greater where forceps are used, even in the most skilled hands, than it is in unaided deliveries. After all, it is a steel instrument used in a soft and vascular canal, and no one who has carefully examined with speculum cases after forceps deliveries can deny that some slight abrasions of the parts are unavoidable. As far as the danger of sepsis is concerned, Dr. Fletcher has truly said that tears or abrasions of the vagina are most to be feared and after those injuries of the cervix, and lastly, those of the perineum, and it is the first of these that with forceps are most apt to occur. Dr. H. Spencer, Professor of Obstetrics in University College Hospital, London, an acknowledged authority, some years since proved by a carefully conducted series of autopsies on forceps delivered children the frequent existence of hitherto unsuspected injuries of liver, spleen, brain and bones, not evidenced by any skin lesions, and the monograph in which he published these facts would be useful reading to those who so freely resort to the forceps at the least demand from their patients or their stomachs. In view then, of the proven greater dangers to both mother and child from the instrument, I can but regard him who, to be agreeable to his patient or to save himself time, resorts to the forceps without clear indications, as nearly if not quite as criminal as he who, from timidity or bad judgment, puts off interfering to aid exhausted nature till the life of both mother and child is endangered or lost. While no rule can possibly be laid down, I would say that, with Dr. Fletcher, I have found that we can roughly say that if after the cervix is fully dilated and the head down on the perineum, no advance has been made for three hours, and the strength of the mother is poor or becoming so, it is wise, after a careful consideration of all the circumstances, to interfere. However, I would by no means say that in some cases it might not be indicated much sooner, or that in others it would not be safe to wait longer. And before closing let me say that the impatient doctor will often bring a tedious case to a happy termination without the use of instruments by the timely use in a tired but not exhausted woman, of a full dose of opium, possibly combined, if rigidity exists, with chloral. After awaking from a sleep thus obtained, the pains will begin again with renewed vigor, and the child soon be naturally born, who otherwise would have been subjected to the by no means chimerical dangers of the forceps.

Dr. L. B. McBrayor.—The salient point in the Doctor's paper, as I understand it, is that in a certain class of neurasthenic women, where there is nothing to impede the progress of the head, and the pains are normal, and, therefore, head advancing with each pain normally, yet he thinks it better to apply forceps, when head is at middle straight of pelvis and deliver. While my practice only extends over a period of a few years, yet I have never been able to differentiate this class of cases, and I don't think it advisable to apply forceps under these circumstances, and I agree fully with the remarks made by Drs. Minor and Fletcher. As regards Dr. J. A. Reagan's as to the infrequent necessity of forceps delivery in our mountain women, I will say that my first case of forceps delivery was in consultation with a doctor of forty year's practice, who enjoyed a very large obstetrical practice; yet this was the first case in which he had found it necessary to use accouchement force. This patient was thirty-five, had been in labor seventy-two hours when I saw her and was totally unconscious from exhaustion. Patient made a perfect recovery, but with paralysis of right leg for a few months, caused by pressure of fœtal head.

Dr. J. A. Burroughs.—Have listened with care and profit to Dr. Watson's paper and the discussions. Am one of those physicians who believe in the frequent use of instrument in labor. I believe in the use of forceps whenever indicated, and think I am safe in saying that I have delivered one-fourth of all my cases with forceps. The forceps should always be applied where there is a retardation of labor after dilatation of cervix, without waiting for symptoms of exhaustion of mother, and possible danger to child, from long compression of head or cutting off circulation of cord. Am a strong advocate for the use of forceps, as they not only shorten the hour of labor, to say nothing of the lives of the mothers and children that are saved. Forceps property applied to the head of the child, without catching the cervix, with proper traction under an anæsthetic, will be followed by fewer lacerated cervix and injuries of vagina, than delivered without instrumental interference. The perineum is never ruptured by the forceps, if the physician exercises proper judgment in removing the instrument in time.

Dr. Cooper, of New Castle, Pa.—I heartily agree with Dr. Burroughs in his argument on the use of forceps, but I cannot see for myself how he or any physician can lay down any certain hour for the application of forceps. I have used them during my practice, and I find the time required for one case may not correspond with that of another; therefore I should, for myself, think it the wisest plan to let each case govern the time in which the forceps should be applied; and as for chloroform I use it constantly, and have never seen a death or any bad results from it in my practice.

Dr. H. B. Weaver.—I am like Patrick Henry on a momentous occasion. I have but one lamp by which *not* my feet but my hands are guided, and that is the lamp of experience. I have had a moderate experience in obstetrical practice, having now nearly reached the two thousand mark, and have had occasion to use the forceps but few times in this number, possibly not more than twenty times. It may be that this is due to my practice being among robust mountain women, but as I approach civilization and the city fare the use of forceps becomes more in demand. In regard to Dr. Burroughs experience (the use of the forceps in one case in every four) I would hate to undertake to examine every case he has thus delivered and behold the vast number of lacerated "perinei and cervices" I do not agree with Dr. Burroughs that an obstetrician is justified in the resort to forceps in order to gain time and comfort to the physician; and especially the statistics do not bear out the idea of such frequent use of the forceps, and, furthermore, the main indications for the use of forceps in normal labors are in cases where the mother's strength is failing and the uterine contractions becoming less and less, and the child in imminent danger; when there is need of prompt delivery, as in placenta previa, when the head fails to descend promptly and version is impossible, and when the occiput fails to rotate to the anterior, these are the main indications for the use of forceps. No strait jacket rules can be laid down, each case being a law unto itself. In regard to the use of chloroform in labor, where instrumental delivery is demanded, I most always use the anæsthetic just sufficient to render the patient comfortable and not to complete narcosis.

Dr. A. M. Ballard.—*Quilling in cases*

of Tedious Labor. Some years ago a young man who was hopeful and resourceful, though he had no profession, trade, or business training, took Greeley's advice and went west to seek his fortune, and finding himself suddenly financially embarrassed and without credit determined to hang out his shingle as a practicing physician and trust to fortune for success. He had not long to wait for a call. No sooner had he seated himself in his office than he was requested by a messenger to hasten to the bedside of Mrs.——, whom he found vainly trying to have a baby. He was informed by the attending physician that the patient had been in labor for many hours, but that for some time there had been no progress made. Whereupon he aske the attending physician if he had quilled her. Being informed that the lady had not been quilled, he said, get me a hen's feather, quick! Then cutting about two inches from the feather he requested them to bring some red pepper which he introduced in the little tube which he had made and quickly blew it up the patient's nose. This caused a severe paroxysm of sneezing and the baby was soon born.

Dr. J. E. David.—Dr. David made some remarks to show the necessity of pelvic measurement in every case of labor. By a routine application of the pelvimeter the obstetrician cannot but find valuable indications or contra-indications for the use of tho forceps.

Dr. J. A. Watson's reply to the discussion.—There are but three points in Dr. Minor's remarks that I think necessary to reply to. He seems to have misunderstood my views in three particulars. I can not see how Dr. Minor expects to rupture the liver, the spleen, or any of the abdominal viscera by the application of the forceps to the class of cases under discussion, namely in vertex presentations. Under no circumstances are they ever to be applied by reason of the dangers enumerated by the Dr. to the body of the child. I quite agree with Dr. Minor that the forceps are very dangerous in some hands and I have no doubt the noted London Professor quoted was discussing cases where the forceps had been thus ignorantly and injudiciously used. Again I will remind the Dr. that if he will have his instruments boiled immediately before applying them, and his patient properly prepared and surgically cared for thereafter he need not hesitate to use the forceps on all cases when the second stage of labor is exhausting the patient's strength by reason of the innumerable factors operating in each individual case according to her peculiarities of temperament. And lastly I must divert from Dr. Minor's statement that impatience of delay, or a desire to economize time influences many physicians or warps their judgment as to the necessity for the use of forceps.

Letter from Philadelphia.

Typhoid Fever and the Water Supply.

Philadelphia, March 28th, 1898.

In November of last year the people of the City of Philadelphia by a decided popular vote imposed upon themselves a Loan Bill, amounting to the sum of $11,200,000. The object of this bill was to carry out certain lines of public improvements beneficial to the city and its people. Three million seven hundred thousand dollars of this total amount of money was to be set aside for the improvement of the water supply. On Nov. 16th, 1897, an intercepting sewer near Manayunk (a suburban district) burst and for about two hours the contents of this sewer is said to have run into Wissahickon Creek.

Immediately below is located the water which furnishes the Queen Lane Reservoir, the water supply of several wards of the city. For several years the statistics showed that the typhoid fever here had not been worse than in her neighboring cities, but early in December it began to grow into an astounding epidemic, and 212 cases were reported the week ending January 22d. For comparison it may be said that New York, with twice the population, reported 19 cases the week ending Jan. 8th. The highest rate of increase was in the wards supplied by the Queen Lane Reservoir.

So palpably had the facts become known that there had been pollution of the water supply, that the city bacteriologist, Dr. A. C. Abbott, was instructed to make a complete bacteriological examination of a sample of water from the reservoir. This was very carefully done but no typhoid bacilli were found. He, however, proved beyond doubt, by means of charts, statistics and common sense, that the epidemic was set up by the water from the Queen Lane Reservoir. Meanwhile the subject had grown to be such common knowledge that the city council was implored, commanded and then threatened in many ways to do something with the water.

Notwithstanding these public demonstrations, councils, by a decisive vote, rejected the amendment setting aside the $3,700,000 for the improvement of the water supply. Many of the councilmen said that they were really in favor of the special sum for the purification of the water but there were so many amendments or "riders" attached to it that they voted against them all. It seems that certain private schemes have been set on foot looking to a system of filtration, but councilmen have not yet decided that the city shall let go its control of the water supply.

Another important point in connection with this subject to the readers of the Journal is, that the thorough examination made by the city bacteriologist, Dr. A. C. Abbott, has been supplemented by one from the city chemist, Mr. Wm. C. Robinson, who states in his report, that "the chemist, however, should not assert without qualification that the drinking of any polluted water will cause sickness. He may only declare that owing to the amount and character of the polluting material the use of such water is likely to result injuriously. Even after chemical analysis has been supplemented by bacteriological examination, and the presence of organisms indicating fermentive changes has been determined, the water cannot be said to be disease producing."

Indeed this looks as if we shall have to go back to first principles again in regard to the examination of water for potable purposes, and resort to the "examination by the senses," as outlined by Blyth in 1882, and declare: "Water that is turbid, that possesses an odour, and an unpleasant taste requires no analytical processes to condemn it entirely; such a water is unsuitable for drinking purposes."

Now comes the sober second thought of the people, with strong words of condemnation to those who will not give relief; doctors, lawyers, and preachers, alike condemn in no uncertain language the action of councils. The College of Physicians, County Medical Society and other medical bodies have joined hands to demand better water. A public indignation meeting has been held at Horticultural Hall, at which time the above bodies were well represented. One of the speakers at this meeting said: "I know of an estimable young lady who died from the mixed drink (Schuylkill water) and the clergyman who preached her funeral sermon spoke of the dispensation of Providence. This was a mistake. She died from the visitation of councils." Another speaker said: "It is the duty of every preacher when he performs the last sad rites over the body of one of his flock who has fallen a victim to this epidemic to say, this person has been murdered, literally murdered." Similar sentiments were expressed by other speakers, upon the conclusion of which Dr. Mitchell offered a set of resolutions which were unanimously carried, to the effect that the city of Philadelphia would not agree to turn over its control of the water system to private concerns and further that it was the duty of councils to at once improve the water supply by passing that portion of the Loan Bill set aside for this purpose and establish a system of filtration.

The severe epidemic of typhoid fever, however, now shows some signs of abatement there being 57 new cases and 12 deaths for week ending March 20th.

Notwithstanding the epidemic of typhoid fever the mortality statistics otherwise show that the death rate for the entire year just closed is lower than it has been for the past thirteen years, being 18.72 per thousand.

Mortality statistics for the year 1897.—During the year 1897 there were 22,735 deaths, the death rate based upon a population of 1,214,256. Pneumonia heads the list with 2,723 deaths, consumption 2,388, diphtheria 1,474, typhoid fever 401, and scarlet fever 282 deaths. The total number of births for the same period was 25,591 and is equivalent to a birth rate of 24.37 per 1,000. Diphtheria was more prevalent than for several years past, there being 5405 cases reported, with 1474 deaths, a death rate of 27.28 per 1000.

The Widal reaction in the new born—Dr. Alfred Stengel recently presented a woman at the Clinic of the University of Pennsylvania who a few days previous had given birth to a child at the ninth month of pregnancy and in the second week of a typical attack of typhoid fever. A short time before birth of child the blood of the mother had given the Widal reaction. When the infant was born its temperature was 102 degrees but gradually subsided within three days. A sample of its blood was made for the Widal reaction but proved entirely negative.

Milk Jars and Tuberculosis.—The Board of Health at a special meeting on Saturday listened to arguments for and against the system of distributing milk in glass jars. A representative of the Woman's Health Protective Association expressed herself as being opposed to the glass jar system unless the jars had first been thoroughly sterilized. The President of the Pennsylvania Society for the Prevention of Tuberculosis said that the distribution of milk in vessels which are taken into sick rooms tended to spread tuberculosis. The Board has not yet expressed an opinion.

E. A. Woldert.

1612 N. 16th Street.

Colles' Fracture.

By D. F. Talley, A. M., M. D., Birmingham, Alabama.

Perhaps to-day one of the most "crying needs" in the profession is a more thorough knowledge as to the diagnosis and treatment of fractures of the lower end of the radius. Hardly a day passes that I do not see some one suffering the results of an unreduced Colles' fracture. In the rural districts and small towns this fracture, *with its minimum amount of deformity*, is rarely ever diagnosed and never reduced. This is a broad statement, but I am convinced of its truth. To bear me out in this opinion I have seen numerous cases that had been treated by some of the most prominent and excellent physicians in the small towns of the State, and was told by these patients that they had been treated for a "sprain." Now this failure to properly treat Colles' fracture is by no means limited to the country physician, but many doctors in the large cities fail to diagnose the trouble, or do not effect the proper reduction after a doubtful diagnosis.

It is a sad reflection on surgery to think of the untold thousands of men and women going through life with painful, deformed and partially disabled arms, due to faulty treatment of the *most common fracture in the human body*. And yet it is easy to see why this fracture, with slight deformity, should be overlooked. The arm about the fracture is so little contorted, there is no mobility and, as a rule, no crepitation. One can, also, readily understand why its reduction is so often not effected, even in cases where the deformity is so great as to leave no doubt as to the diagnosis, because the fragments are firmly locked together and cannot be moved without the proper manipulation. All cases coming to the physician with an injury about the wrist and a history of a fall on the palm of the hand should be viewed with suspicion as to this fracture, and where the typical "silver fork" deformity exists, no matter how slight, it should be treated as a fracture and not as a mere "sprain."

Figure 1 represents Colles' fracture with a minimum amount of deformity. Cases of this kind are the ones so often diagnosed as sprains. They differ from sprains in that the swelling and pain are above the wrist joint and the parts about the fracture are very sensitive to pressure. In sprains the swelling and tenderness will be found immediately in the wrist joint. In this figure a slight depression on dorsal aspect can be seen where, in the normal arm. there is rather a fulness at this point, and on the anterior surface there is a fulness, or projection, where there should be a slight concavity.

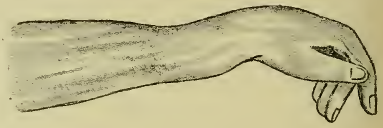


Figure 2 represents this fracture with more displacement of the fragments than we have in Figure 1. In a number of cases represented by Figure 2, in which it must be very plain to the physician that he is dealing with a fracture, very little, if any, of the deformity is reduced by simple traction on the fracture. We are greatly indebted to Dr. John A. Wyeth and Dr. L. E. Pilcher for their contributions on the nature of this fracture. Dr. Wyeth himself is one of the many victims of an unreduced fracture of this kind, and will carry to his grave a badly deformed, but *useful* arm.

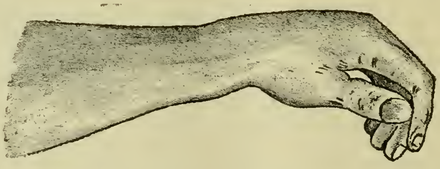
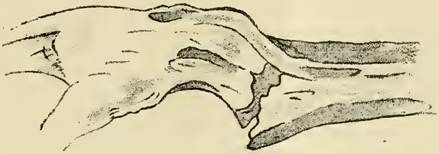


Figure 3 is taken from Wyeth's latest edition. It shows so plainly the nature of Colles' fracture as to render it easy for one to see the difficulty of its reduction unless the proper manipulation is employed. In this cut a strong, fibrous band can be seen on the dorsal aspect of the radius, which is raised from a portion of the bone together with the periostium. This band locks the fragments together in their displaced position and, unless it be relaxed, it is, in many cases, impossible to reduce the fracture. In order to relax this band the hand is carried forcibly back into extreme extension upon the forearm, which movement liberates the fragments from each other, then the lower fragment must be pressed downward while the upper one is raised by an assistant. Now strong tension is made on the hand while it is brought down straight with the forearm. This manipulation will, in a great majority of cases, perfectly reduce the fracture without giving the patient an anæsthetic. However, if it fails, owing to extreme contraction of the muscles of the forearm, chloroform or ether should be given and the same manipulation employed till the deformity and fracture are reduced.



An interesting case was treated by me recently. A young man, while playing football, was thrown and caught on the palms. He came to me from a neighboring town and when I saw him, about four hours after the injury, the arm appeared exactly as pictured by Figure 1. I at once reduced the fracture with the greatest ease by the above described manipulation, but he complained of numbness of the fingers. In the course of half an hour he began suffering extreme pain in region of fracture. I was at a loss to know why he suffered, as the deformity was perfectly reduced, and ordered morphine to ease pain. In the course of three hours he had taken three-quarters of a grain and still suffered at short intervals. I decided from the numbness of his fingers and the excessive pain that some of the filaments of the interosseous nerve had been caught between the fragments when the fracture was reduced, so I gave chloroform to thoroughly relax the muscles, then exerted extreme traction on the hand to liberate any nerve filaments that might be caught between the fragments. After this he became perfectly easy and has not suffered any since. I mention this case because I have never seen nor read of a similar one.

After this fracture is reduced there is little difficulty in keeping the fragments in position. A good plan is to place the arm in antero-posterior splints of pasteboard for eight or ten days, until all the swelling subsides. These splints reach down to the phalanges, leaving the fingers free to move. When the swelling has subsided a snugly fitting Plaster of Paris should be applied from the first phalanges to the middle of the forearm. In fifteen days from the time of the fracture this plaster should be cut off back to the wrist, so as to allow that joint free motion and to prevent subsequent stiffness. The plaster may be entirely removed in four weeks after the injury, when the arm will appear about normal, and the wrist will be freely movable and useful.

"Reflex Irritation in Diseases of Women."

Your editorial, in the Journal of February, on the "Reflex Irritation in Diseases of Women," is timely and well said; yet you might have added the necessity and duty, as well as the responsibility, of physicians being more careful and thorough in their examinations when called to visit the sick. I have a number of cases in mind that fully illustrate and confirm what you said in the editorial referred to.

1st. A Mrs. G., thirty-six years old, came to my office complaining of her stomach—the failure of her appetite—said she had no pain anywhere else. She had been told it was caused by torpidity of the liver. I examined her; found her stomach tender, but no enlargement of the liver or soreness there. She was very nervous, pulse regular, but weak. Heart beats natural. I gave her a nerve tonic, and regulated her bowels, but she got no better. A physician, who had been connected with the Medical College of Charleston, S. C., for twenty years, visited me, and while in my office the lady came in, and I gave him a history of her case, and the treatment, and requested him to examine her. He did so, and said: "Doctor, I can find nothing the matter with her except what you have told me, and I am sure there is no better treatment than you are giving her."

With his endorsement I continued it for a time, without any improvement, but, if any thing, she grew worse. I told her that my decided opinion was that her trouble was in her womb, and that the trouble she complaimed of was reflex. She consented to an examination, and I found an ulcer about the size of a silver quarter of a dollar on the os uteri, which seemed to be of a malignant character. I at once directed my treatment to the diseased part, and soon had her well. When this ulcer was well, her stomach trouble was cured. This was some twenty years ago, and she is to-day as healthy an old woman as is to be found any where. This case illustrates fully your position.

2d. Mrs. A., some thirty years of age, had been treated for some time by a physician for "liver troubles," by another for chronic inflammation of the stomach, and by a third for tuberculosis. When I saw her she was quite feeble. I diagnosed her case as a reflex from the womb. I made an instrumental examination, and found a cauliflower excrescence attached to the os as large as a child's head. I asked her how she could have as large a thing as that attached to her womb and not know it. She said she knew there was something wrong, but had no idea that anything of that size was there, and that none of her physicians had ever suggested that there was anything the matter with her womb, and never questioned her in relation to her female organs, in any way, so that she supposed there was nothing serious the matter in that respect. I cut it off, and she and her mother were astonished at its size. Of course, I could not see or feel the womb until this was removed. Then, after examining it thoroughly, I found the inside badly diseased, and told her all I could do for her was to make her last days more comfortable, but that I could not cure her. If her disease had been properly located at the beginning of her trouble, she might have been saved, but it was too late when I saw her to save her life. She lived about two months and died.

I will now give you two cases of neglected or careless examination without the reflex action.

Mrs. S., some thirty-six years of age, was complaining of something wrong with her womb. She put herself under the care of a good physician, and from the way she complained, he pronounced her trouble "falling of the womb," without examining her. He treated her for some two years, and she got worse, instead of better. I was sent for and found her sitting up, and able to walk about. She told me her symptoms. I asked her if her physician had ever examined her to see what was the matter, and she said he never had, but told her she had falling of the womb. I told her to lie down, that I wanted to see the condition of the womb that I might be better able to treat her case, that there were several displacements, and I was not willing to begin treatment without knowing what I was treating her for. I made a digital examination and found the womb to its place, and, with touch, seemed healthy, but I discovered something wrong with the urethra. It was badly swollen near the bladder, and the front part seemed to be gone. I told her that one examination called for another, that I would have to use an instrument to see what was the matter, as it was not what she had been treated for. I used Sims' Duck bill speculum, and found a cancer had eaten off the urethra within three-fourths of an inch of the bladder, and that it was very much affected up to that organ. I sent for the physician who had been treating her, and he brought another physician with him. I showed them her condition, and told them that I regarded it as a hopeless case. They agreed with me, and he said "I feel that I ought to have examined her two years ago when she first called on me, but she looked so well, and complained so little, that I did not think her very bad any way, but this has learned me a lesson I will never forget; I will examine my patients more carefully from this on."

2d. Miss N., whose brother was an old and experienced physician, was complaining of pains about her womb, as he told me, and he thought it neuralgia of the womb, and gave her quinine and morphia. This continued for months, or perhaps a year, when he changed his residence, and another physician was called in. When he went, knowing the ability of her brother as a physician, he asked her what her brother gave her for those pains. She said quinine and morphia, and he gave her the same, but at his second visit he made an instrumental examination, and found it to be cancer of the womb in its last stage. She died in a few months.

These cases show the necessity of an early and thorough examination in all cases. If we had no means of certainly finding out the condition of the womb, there might be some excuse for this kind of neglect, but with the advanced knowledge, and the improved instruments, I cannot see how a physician can feel clear of neglect when he lets a case run until it is beyond control, before he makes any effort to find out what is the nature of the disease he is treating. It may be local, or reflex irritation that causes the trouble. If displacement, remedy it. If local, treat it as such, and try to save the sufferer. I therefore fully endorse all you said in your editorial, and could add many more cases, of reflex irritation, or, as old Professor Ford used to say, when I was at College: "Reflex motory action."

J. A. Reagan, M. D.
Weaverville, N. C.

What Alcohol Does for the Brain.

By T. T. FERREE, M. D., Ashboro, N. C.

I would like to express my views through THE CHARLOTTE MEDICAL JOURNAL relating to the specific effects of alcohol on the brain. But before I do this, I wish to define clearly and unmistakably what alcohol is.

There are six kinds of alcohol. The first appearing on the list is methylic, whose chemical composition is one atom of carbon, four of hydrogen, and one of oxygen—the chemical formula would be $C.H_4O$.

The last on the list is caprylic, whose chemical composition is $C_6H_{14}O$. Ethylie, or common alcohol, has two atoms of carbon, six of hydrogen, and one of oxygen.

Now it will be seen that the amount of carbon and hydrogen increase as you go up the list, while the quantity of oxygen remains the same in all the different kinds of alcohol. No matter what form alcohol may assume, it has one origin, the *destruction* of *sugar*. It is not a vegetable growth like the substances created to nourish man. Nature, says Count Chaptal, "never furnishes spirituous liquors." She rots the grape upon the branch, but it is *art* which converts the juice into wine. No chemist has ever yet found it among the substances formed by plants. Nature in the laboratory of vegetation takes the poisonous gases and splits them up, and then puts the atoms into new groups, capable of nourishing the animal system. But alcohol is a product of dissolution, the wreck, the disorganization of human food; it is in reality a product of decomposition. The juices of the fruits, by the influence of the *fungus yeast* are turned to rottenness, and then, and only then, is alcohol generated out of the destruction of the organic sugar.

It has the same origin as the malignant and fatal exhalation of the pestilence, the death and putrefaction of organic substances. Hence it is no more the gift of the Creator than the malarial poison that breathes its contagion, and strikes down the young and the old, with disease and death.

I wish now to discuss from a scientific or physiological standpoint the effects of alcohol on the brain. Of course, in so short an article, I can only touch a few salient points respecting the great question.

Alcohol has been from time immemorial considered a stimulant, but the recent investigations of scientists have materially weakened that old idea. I believe and contend that the first effect of alcohol on the brain is that of *irritation* instead of stimulation, for it is a fact that it is both an irritant and a paralysant.

Alcohol paralyses the vaso motor system of nerves which govern the blood supply to the various parts of the body, and hence there is a determination of blood to the brain, which immediately sets up a condition which I call irritation or excitement, and not stimulation. The poison in the alcohol irritates the blood vessels so that they dilate, the nerves already being paralised have no control over the amount of blood they carry, hence the quantity of blood in the brain is simply abnormal. If it be true as claimed by Lallemond, Perr'n and Durvy, and many other scientists, that alcohol undergoes no change in the human body—comes out like it went in—how can it be a stimulant? The world may call me a *crank*, but I have it fixed in my vocabulary that alcohol is no stimulant.

It is only a question of time when alcohol as a stimulant, will be relegated to the things of the past. The best stimulant known to the medical profession is that of strychnia, being both a stimulant and a tonic, it is suitably adapted to all enfeebled and debilitated conditions of the system. In all threatened heart failures strychnine should be given heroically.

The second thing alcohol does for the brain is, it hardens it. It has great affinity for water, which is nature's universal solvent that keeps the various organs pliable and ready for work, and when its gets the water out there is not much left.

I have been told that experts, who make autopsies, can tell by a simple touch in the dark whether it is the brain of a drunkard or not. The tendency of alcohol is to harden every thing it comes in contact with; so when that nervous structure we call the brain is brought thoroughly under its influence, the hardening process is the result.

In the third place, alcohol is deposited in the brain. It has been found in the *cells* of the brain many hours after death. The delicate cells become thoroughly saturated with the poison of alcohol. so on exposing the brain a match ignited and brought in close proximity, will at once exhibit the lambent flame characteristic of alcohol.

Lastly, alcohol diseases the brain. The brain is like any other organ, it must have nutrition. Alcohol destroys the red corpuscles which are the true oxygen carriers. How then can brain tissue remain healthy flooded with impure blood? Leaving out all acute inflammations of the brain which are liable to result from the use of alcohol. I believe it produces more insanity than all other causes combined. I know that there is a hereditary predisposition to insanity, but often this is due to alcohol.

Alcohol seriously interferes with the functions of the brain; it depresses, narcotises, and renders the mind wholly unfit for any mental work.

The first simplest form of mental disease produced by alcoholics is delirium tremens. This is the result of continuous and prolonged alcoholic poisoning by ardent spirits or other intoxicating beverages.

The mind becomes full of hallucinations, strange voices are frequently heard, venimous reptiles are often seen, and instruments of torture are seen suspended over the head of the poor drunkard, and he for a moment is frenzy and chilled in his own blood. I know a young man who has tampered with the blind tiger till now, when he puts his bottle to his lips he often sees the head of a snake darting out. The snake is evidently there, you only have to persist in drinking to see it.

The Cause of the Doctor's Misfortune.

By F. R. MILLARD, M. D., San Diego, Cal.

Book of Job, Chapter 32, Verses 17 and 18.

The February number of your Journal devotes some space to the diseased condition of medical practice in America, and it is interesting reading. Interesting of itself, and also because it illustrates anew how near a doctor can come to discovering the cause of a disease and yet fail to find it. To thoroughly understand a disease, we must know both the cause and its full natural history. Here is where Dr. Strong fails. The editor evidently has given some study to the natural history, but seems to have neglected to study it during the period of incubation. Every infective disease has its incubation period, lasting from the date of infection until the manifestation of its presence.

The editor places its duration at fifteen years, which excludes the period of incubation. He seems disposed to agree with Dr. Morton as to the cause, and is willing some other doctor should try Dr. Morton's prescription. This generous philanthropy reminds one of Artemius Ward's patriotism during the war, when he was willing all his wife's relatives should volunteer and march to the front to defend the flag. Dr. Morton's alleged cause is really the effect, and it is doubtful if his prescription would even palliate. When the cause and the full natural history is known, then we can say whether treatment is necessary or desirable.

My dear brother general practitioner, you are the cause, and the only cause. The infection took place a good many more than fifteen years ago. It was when nearly every County Medical Society, every State, and the National Association, joined in a great and bitter cry for a higher medical standard. There was no law, either moral or statute, prohibiting any preceptor from giving his student any amount of medical or literary lore. It is true many who joined in that cry for the higher standard were themselves below the standard, and not competent to instruct a student. Some were incapable of raising themselves. or of being raised. But as to the majority, all that prevented them from making themselves competent, was inborn laziness. Had one-half of these done their duty, first to themselves, and then to their students, the work would have been done, and well done. What they did do, was to resolve to receive as students only young men of high social position, and who were able to pay a high price for a medical god-father. This may have been commendable had he done his next duty, which was to help his student to lay a broad and firm foundation on which to build his medical structure, and then like an honest supervising architect, watch each day's labor so that no important ashler and no unsound arch should mar the strength or beauty of the finished whole. But hardly was his bonus warmed in his pocket before he sent the student to the doctor mill, and into its hopper he went with a few hundred others as little prepared as he, and they were pounded, punched, pushed and polished, till they come out machine made doctors, one as like the other as are the kernels on a corn cob. Before giving them their diplomas, the head miller was careful to inform them that whereas their predecessors had only for one or two short terms, of 3 or 4 months each, listened to lectures delivered by the measley member of 6 or 8 so-called professors, they for 3 years had had the inestimable privilege of intimate, personal contact, through clinic and quiz, through demonstration and recitation with forty immortals, and were as much better prepared as their stay in college had been longer, and the number of their instructors greater, and as they were well fitted to be at the head, it was fully expected that they would greatly increase the wealth and lustre of the aforesaid immortals. Impatient to plant the seeds of fame and widely scatter healing balm and incidentally gather shekels galore, each one ran to his chosen locality and demanded his rightful place at the head. All conceded that that might be his rightful place, but demanded that he demonstrate his ability to stand there. This presumptious demand caused him to be as much disgusted as Sir John Falstaff was when his tailor demanded security. But the place was worth some exertion, and he proceeded to work his demonstration, but was disappointed at finding those old back numbers he had been taught to commiserate. and had well nigh learned to despise, persisted in curing their patients quicker, and cured more of them than he could, and he seriously asked himself why is this thus, and only echo answered why. He then consulted with others who had like experience, and they sagely decided that they had undertaken too much. As good Christians they must believe that the good God had made all things for some good use, and when one proved a poor doctor he must make a good specialist. For an inspired writer had taught them that every man had his own special gift. To one man the gift of tongues, to another the interpretation of tongues. To one the gift of prophesy, to another the interpretation of prophesy, and he earnestly exhorted each one to cultivate his own special gift. and not try to grab all the others.

Here was a solution of the whole difficulty. Let each one develop along the line of least resistance, and all would be lovely and serene. In an incredibly short time a large part of the profession became inoculated with the pusillanimous belief that the field of general practice was too wide for one man to cultivate, and a demand went up to the doctor mill that a lein to be patched on, and special machinery installed, and when the power was not used in the mill it be switched on to the annex and grind out specialists. No sooner was the demand made than the want was supplied, and specialists turned out in constantly increasing numbers. True, the quality was not so uniform from the annex as from the head mill, but the whole body of the laity, and most of the profession, could judge of the quality only by the label, and those who were capable of judging rejoiced when the quality was good. and when it was poor said nothing, well knowing that any condemnation would be credited to envy, and besides they hoped and tried to believe the evil would only be temporary. Then, when the doctor got a case in which the diagnosis was doubtful, and the treatment an unknown quantity, he called in the specialist and was delighted with the facility with which a diagnosis was reached, and proper treatment outlined, and he said, sir, give me this skill. But the specialist said that cannot be done. It requires first a special gift, and that gift must be cultivated by long study and perfected by constant practice in this specialty.

Now as the treatment of these cases is always tedious, and often disagreeable, it would be much to the patient's welfare and also to the doctor's credit if he would turn them over to the specialist for treatment while he devoted his time to more agreeable and probably, to him, more profitable cases. The doctor appreciated the force of the presentation, and instead of preparing himself to diagnose and treat the next like case which came to him, by resolutely setting himself to watch all its phases and study its probable complications, he turned the treatment over to the specialist, and commenced to prepare to occupy the Prisident's chair by going a-fishing. Or if his social and political ambition was fully satisfied, and his aspiration was for high literary honor, he adjourned to the corner saloon and challenged the bar-tender to a game of seven-up. It is not strange that he soon educated his best paying patrons to dispense with his services entirely. This was righteous retribution, and if it had ended with him, would have been cause for congratulation. But each one so educated became an educator, and so the number increased if not in geometrical, in more than arithmetical progression, until the income of the doctor who had never sinned in this manner was curtailed in almost as great ratio as was that of the greatest sinner of them all.

How thorough this education can be was shown a few years ago by a woman from New York, who was under my care for a short time while she was sojourning on the Pacific coast. It was learned that when she was at home Dr. Sequin attended to her head, Dr. Flint to her chest and stomach, Dr. Hilton to her abdomen, Dr. Polk to her pelvis, and, at the prompter's cell, D. Goelet, with his unexcelled electrical appliances, played second fiddle to each one in turn.

A good many years ago (twenty or more) a paper was sent to the editor of a journal which claimed to stand in the front rank of those who were battling for the higher standing, in which the editor was reminded of the feeling of amused superiority with which we, while undergraduates, speculated about medical matters in Egypt a few thousand years ago, when each organ of the human body was attended by its own set of specialists, and no poaching was allowed, while in our enlightened age the whole body was atttended to by the doctor who was something of a surgeon and the surgeon who was a good deal of a doctor The desirability of a higher standard was conceded, but it was claimed that the best interests of all would be secured by giving to the country a body of competent general practitioners, and it was shown that if the plans of the acknowledged leaders should be consummated this result would not be secured, but that a horde of specialists would be engendered by whom general practitioners would be as completely exterminated as they were in old Egypt. The paper was never printed, but in generous remuneration for the cerebral grey matter used up in its production the editor sent me a letter full of sweetness and light. Three of its sweetest and brightest plums are here reproduced :

First : As you are not now and never have been connected with a medical college as a teacher, perhaps you are not as competent to decide this point as are men who are devoting their lives to medical teaching.

Second : There are not now enough, and probably neither of us will ever see too many, well educated specialists in this country.

Whether the third was last because it was sweetest, or added, like the silk-snapper to the end of a whip-lash, to sting a good deal and not hurt much, I never knew. But here it is : "If specialists and general practitioners should ever come into competition, which is not likely, let the galled jade wince, the fittest will survive."

Two times within two years has the then editor appeared in print, bewailing the fate of the general practitioner because the specialist is taking away all his living, and it seems in otder to ask if his shoulder is galled, or if he winces from pure sympathy?

However that may be, my dear doctor, possess your soul in patience. Our successors will be able to *see* the old Egyptians in the number of specialties and also *go them one or more better*.

But even this evil, like the fad of removing the uterus and its adnexa for pus in the female pelvis, will cure itself, and at the end of days scientific common-sense will get an inning, and the general practitioner be accorded his proper status, which will not be that of game-dealer for specialists.

Widal's Reaction in Typhoid Fever.

Tschistovitch discusses the significance of Widal's reaction in the course of typhoid fever and its value in prognosis. (British Medical Journal.) On the author's recommendation the sernm of 80 cases of typhoid was tested by Yepifanoff, and it was found that in the more severe cases the reaction was generally feeble until the later stages of the disease, while the cases where the reaction was well marked the disease ran a favourable course. This caused the author to look on the agglutinating power of the serum as a useful quality, and as tending to produce immunity. To throw further light on the subject he tested the serum of a number of cold-blooded and warm-blooded animals who were injected with agar and bouillon cultures of typhoid bacilli. Perches, frogs, and tritons were used to represent the one class, and rabbits and guinea-pigs the other. The cold-blooded animals developed but little of the agglutinating power of the serum, and this only after about a month after infection, while the rabbits and guinea-pigs showed the reaction markedly, and as early as the second and third day. In the warm-blooded animals the leucocytes were counted, and it was found that their number diminished for the first two or three days, and then again increased slowly until they reached the normal, or sometimes even increased above the normal. The reaction in the serum was not developed until the leucocytes sank to the lowest number, and were commencing to increase again. As a result of these experiments the author is inclined to regard this power of agglutination in the serum as a sign of immunity. It is not developed in cold-blooded animals, as the temperature of their blood is unfavourable to the growth of typhoid bacilli while phagocytosis in them is very active, as was seen in one of the tritons, whose leucocytes were full of the bacilli. The presence of Widal's reaction is, however, not of much value in prognosis, as the latter in typhoid fever depends on many collateral causes, such as the state of the heart, of the intestines, of the central nervous system, etc.

In the Atlanta Medical Journal of February, 1898, Dr. Herman D. Marcus, late Lecturer on Materia Medica at Chirurgical College, Philadelphia, Pa., says : In fifty-five cases of uterine and vaginal diseases I have used Micajah's Medicated Uterine Wafers with distinctly favorable results, as follows : Thirty-eight were cured, nine greatly improved and the balance unimproved—a percentage of cures larger than from any other form of treatment. Some twenty-five or thirty cases of leucorrhoea treated with these wafers showed cures in three to six weeks. (A sample of Micajah's Medicated Uterine Wafers will be sent free by addressing Micajah & Co., Warren, Pa.)—Editor.

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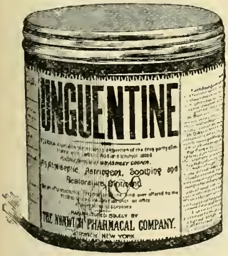

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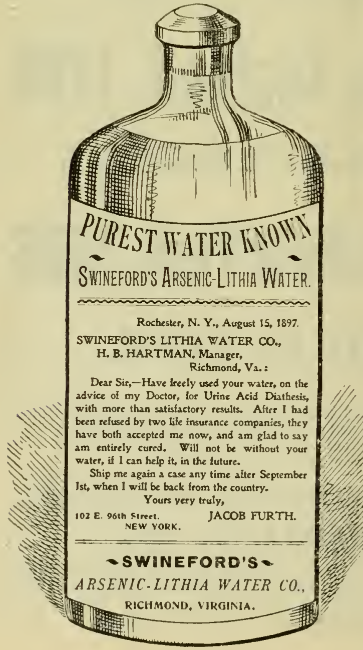

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Dear Sir:—About two years ago I received a case of your Arsenic Lithia water, which I gave a patient who was suffering from Uric Acid Diathesis, with general torpor of the digestive secretions, and the result was so positive and prompt, that I have prescribed it in almost all cases where a medicated water was indicated, since that time, and am free to say that the results have been as much so, if not more satisfactory, than from the Buffalo or any other water I have used. As a pure table water, I don't think it has an equal. I have used the Aerated water with convalescent patients, and have had no trouble in administering it to the most delicate and feeble.

Very respectfully yours, &c.

(Signed) C. E. MOORE, M. D.

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JUGULATIVE METHODS IN ACUTE INFECTIOUS DISEASES.

The scientific worth of methods claimed to abort infectious diseases depends, first of all, on the accuracy of the diagnosis. Even the tyro in medicine should not doubt this. That it may be possible to cut short the normal duration of a specific infectious disease through the administration of pharmaceutical remedies may be, and doubtless is logical. But for a long time science has proclaimed that facts are necessary for proof. No dialectic skill will answer; what the scientist wants is cold, convincing facts. Because jugulation is a logical possibility, as is also the prevention of all infectious diseases, are we to assume that it can, at present, be accomplished? Even the laity, in general, believe very firmly in the possibilities of aborting certain diseases, probably because of the very general belief even of physicians a generation since, that it could be done. The physician aborts, or at least believes he does, pneumonia and various types of fever, while the laity with even more *sang froid* attack "a cold," whatever that may mean, and annihilate it *secundum artem*—sometimes they fail, not only the laity but the trained physician. Why they fail is not always apparent, but probably because they did not use enough of a certain remedy, or indeed might not have selected the proper one. We profess not to know the cause of failure and are not ashamed of admitting our ignorance seeing that when the result is a success no one seems to know just why. One fact, however, stands out prominently—that is that the all important thing is to begin treatment early in the dieease. All methods without exception require this to be successful. But how is one to know at the very onset what disease is present. Indeed he would be a bold diagnostician, and we suspect not infallible, who would diagnose typhoid fever before the fifth day. A conservative physician would prefer to wait a day or two longer. And it seems quite Herculean to say positively "lobar pneumonia" before twenty-four, or even thirty-six hours. Of course we have all seen the typical typhoid temperature–rise, headache, nausea and abdominal tenderness vanish in a few days without any special therapy. Did the disease jugulate itself? And how many cases of "suspected" pneumonia never gets to the diagnostic stage, but remain simply bronchial catarrh? It is useless to elaborate; but jugulation can never be accepted as a fact unless we know for certainty that the diagnosis is or was a true one, and that the disease would not have ceased spontaneously, without treatment. We can have faith, to be sure we may believe in any thing, for that matter, but it is not so convincing and satisfactory as proof. Let us have the proofs if such can be produced.

THE SERUM TREATMENT OF TUBERCULOSIS.

Isopathy, in its practical application for the cure of tuberculosis has never reaped any gratifying results. The story of Koch's tuberculin is well known. Recently, many reports from European and American investigation have conclusively shown that Koch's new tuberculin (tuberculin T. R.) possesses neither curative nor immunizing properties of such potency as to encourage its extensive use. Experiments on man and small animals gave only negative or doubtful results. Nevertheless, a tendency to immunization in man under the stimulus of tuberculous infection has been repeatedly pointed out, and insisted upon by Koch himself. Thus it is well known that a tuberculous infection of the lymph nodes in infancy (scrofula) or joint tuberculosis, when persisting for some time and ultimately healing, renders the patient immune, so that pulmonary tuberculosis is rare in later life. It is on this tendency to immuzation that the hope of a successful therapy of tuberculosis rests. While the toxic products of the tubercle bacillus can not be used directly for curative purposes, still by its use animals might be induced to yield an antitoxin. This seems to have been accomplished to a degree that is certainly promising by Dr. C. Fisch. His very interesting report appeared in the Journal of the American Medical Association, Oct. 30, 1897. By a gradual and cautious augmentation of the dose, the tuberculous toxins obtained by pulverizing dried tubercle bacilli (T. R. and T. C) were injected into healthy horses about once every week or ten days. In this way after some months the serum of the horses had obtained decided antitoxic and bactericidal properties.

These properties were marked and constant, and experiments on guinea pigs resulted in a complete demonstration of the potency of the serum as an immunizing, and, to a less extent, as a curative agent. It is true the antitoxic value as expressed in ordinary antitoxic units is small, yet it is to be hoped that this may be increased as the various steps in its preparation are better understood. Very gratifying, too, seem the results obtained in its practical application for the cure of consumption. When these results are compared with those obtained from the use of tuberculin T. R., the conclusion is inevitable that a signal advance has been made in the treatment of tuberculosis, and that the serum treatment will finally triumph in this disease is more than a possibility.

THE AMERICAN MEDICAL ASSOCIATION.

The next meeting of this Association will be held in Denver, Colorado, on June 7th, 8th and 9th, the 10th being given to an excursion. Well-founded indications and assurances point to an attendance of (2,000) two thousand members. I am assured by the Secretaries of Sections that the papers to be read will be scientific, and of a high order of merit. We are justified in asserting that this meeting will be one of the very best and most interesting in the history of the Association, and it is believed the most important in results.

There are special reasons why medical men should wish to attend this convention in large numbers from every part of the country. They have heard much, doubtless of the climatic resources, but know, as a rule, little of that section of the country. The interests of the sick demand better and more intimate knowledge of climatic conditions on the part of our profession. While the profession of Colorado has, in common with others, felt the stress of hard times, yet it has raised enough money to properly and suitably entertain all visiting members and their families. Besides excursions to many towns of interest in the State, have been arranged, at most, at only nominal rates. These include Colorado Springs, Georgetown, Pueblo, the mining towns of Leadville and Cripple Creek, and Glenwood Springs, with its famous bathing pool and natural vapor baths, with a temperature that does not vary 2 degrees from 112 F. the entire year. These baths are not excelled anywhere in the world. Those at Idaho Springs, near Denver, are also excellent.

The committee of arrangements feel certain from present assurances, that the railroads will give one fare for the round trip, for thirty days. A Special train will be run from Chicago, St. Louis, and Louisville, and it ought to be arranged to run one from Atlanta.

Accommodations have already been secured for sectional and general meetings, and also for exhibits.

The American Academy of Medicine also meets in Denver on June 4th, and on Monday the 6th of June, the Convention of Medical Editors, and a banquet in their honor in the evening.

It is to be hoped that the profession generally will use this opportunity to see one of the most interesting, picturesque and attractive sections of our country. The temperature decreases about three degrees for every one thousand feet of elevation. Denver is just one mile above sea level, and has a population of 150,000. Its mean annual temperature is 48 F. The mean maximum temperature for July is 76, while its mean minimum is little less than 60 F. Denver has an average of 320 days of sunshine in a year, and a sky more genial and balmy than sunny Italy, with a climate that, in an exceptional degree, gives hope, strength and life to the tuberculous subjects of every land. While we may not be able to guarantee it, for fear of early June showers, yet it is to be hoped that the sun will beam upon this gathering of representative men and women, though it may now and then, in deference to the intellectual splendor of the occasion, retreat in the shadow of the Rockies.

We feel confident that all will return to their homes pleased with their visit, for regardless of professional matters, the science and art of mining and smelting may interest them; besides it will be their opportunity to see as grand and beautiful scenery as the world affords—certainly not excelled by "Saxon-Switzerland," the Tyrol and the Alps, nor by the beautiful lake regions of Switzerland and Scotland.

INDICATION (2) TO PREVENT PAIN.

See any modern text-book on Practice of Medicine and turn to any disease and under treatment you see Indication (1) to Relieve Pain. To this let us add Indication (2) to Prevent Pain. This indication being equally important, should be early impressed upon every physician, and then experience will have one less thing to teach him. This indication can be fulfilled not only by the use of drugs, but by the doing of many little things that suggest themselves to a thoughtful physician. Often for the purpose of a close differential diagnosis, the careful physician must withhold any analgesic which would tend to obscure or mix up the symptoms; then, though the patient must suffer, he finds comfort in the fact that his physician has explained to him why he must let him suffer. As soon as the diagnosis is made, and the seat and cause of the pain are located, then it is one great duty of every physician to make his patient as free from pain as possible, while the general treatment of the disease is being carried out.

But about the new indication added—To Prevent Pain. This applies to the medical diseases even, but especially to the surgical diseases, and to minor surgery too. Is there to-day any excuse for a physician to cause his patient pain in minor surgery? There is none. An abscess on the back of the neck causes great pain. In such a case to relieve the pain is to treat the disease directly. The pain will be eased by opening the abscess and so relieving the tension. Making the incision should not cause the patient any pain. But it is not to pain during an operation that we refer; for anæsthetics, general and local, at this time can wipe all tears away. Yet even here we would make a plea for a more frequent use of a local anæsthetic. In doing the smallest operation, which might cause pain, let it be used every time. In all the examinations before an operation and in the preparation of the patient, the physician should be very careful and handle the patient as easily as pessible, causing him the least pain. Even this tends to inspire confidence in his physician's skill. For a physician, even the "dignified" kind, to know how to nurse a patient is no crime. Indeed, it is one thing he should know, and not the least one either. As to the patient, so to the physician also, it is an advantage. For people have been heard to say, "I like this doctor, for he is so sympathetic and gentle with his patient." While we believe that this tact is largely a natural gift, yet who cannot by striving somewhat improve his one talent?

Now, after an operation is the great time for this new indication—To Prevent Pain. These are days of great tediousness to any patient at best, and the physician can in so many ways help the patient bear it. If necessary, use drugs to relieve pain, and where he can see the patient frequently, there are so many little things that he can do for the comfort of the sick one. The things that a thoughtful nurse would think to do, these are the things the physician should know how to do and must do when no nurse is attending. By watchfulness, and by anticipating the slight ills of the patient, and the things which tire and worry him, you can often keep him comfortable and cheerful by doing just some little things, as, changing his position, lowering the shade to prevent too much light on the face, and so forth. Right here comes in the utility of an intelligent female nurse; with her natural delicacy and gentleness, and her sympathetic feelings, no man can think to do the little comforts for a patient as she does them. There is one class of physicians certainly who have learned thus to fulfill this indication, and who are sympathetic with and render their patients as free from pain and as comfortable as possible. I mean those physicians who have been operated upon. You never see them rough with or careless about the comfort of a patient.

But the indication does not apply to surgical cases only. It is the physician's duty at all times to have plenty of patience and to deal as gently as possible with his patient; and while in surgical cases the opportunities for the display of these virtues are greater, yet in treating any medical case, occasions are repeatedly presenting themselves where the wise physician can spare his patient many a restless and fretful day or night. It is not only for the immediate comfort of the patient that he should be kept at ease; but, if it is any long continued case, the physician will see the fruits of his good works. Experience shows that few people can bear pain well, and no one will bear it for any length of time without becoming impatient and fretful, and then he begins to lose hope and heart. In any self-limiting disease, courage and determination to get well are great therapeutic aids. Becoming restless and fretful from pain, they get nervous and then nutrition is impaired and reflexly the other functions, and so the strength and resisting power of the body is very much lessened. Take a case of typhoid fever, where the disease has to run its own certain course, how much you can do for the comfort and ease of the patient, keep his bed clean and even, in giving the baths and washing his mouth, and so forth, be gentle and easy with him, see that he gets ease and sleep at night, and many other little things can be anticipated. Then in the lesser ailments of every-day patients and in all office work, while relieving the patients, cause them as little pain and worry as possible.

The means of fulfilling this indication are found, some in the materia medica, but largely in the physician's own hands; and so it is an art that each physician can practice at all times. Each little service thus done may be small, but together they give us a patient at ease and cheerful, who ever afterwards is ready to sound the praises of his physician. And other people seeing and hearing it, believe also. Thus the physician himself is rewarded. The object of all treatment is to cure the patient; but, while we are treating the disease, we should see that comfort and ease are with him and that pain comes not.

EDUCATING THE LAITY.

We are often amazed at the profound ignorance of medical science manifested by the laity. This ignorance, is not limited to the illiterate, for we meet with men among the highly educated classes, teachers, ministers and lawyers, who appear more attracted towards voodooism, than to our noble science. If reason places an idea in the mind, reason can remove it, and supplant it by another. But there is no known method of displacing an opinion, that has been acquired without reason. Many of us older members of the profession, can with some degree of amusement recall our efforts made to educate the laity when we were young, and ambitious. During my first year's practice, I was called to a case of membranous croup. The child died. On the following day a neighbor called at my office. He was a rich farmer, and stock raiser, apparently above the average in intellect. He said "Well Doc you lost a case in our neighborhood yesterday, we have had lots of croup in our family; we always use goose greese for croup. My wife was very anxious to see you, and tell you about this remedy, as she has had more experience with the disease than you have had." I told him that the croup that had afflicted his children, was probably catarrhal, or spasmodical croup. It then occurred to me that this was a propitious opportunity to educate him, to overwhelm him with information. With a pencil I made a drawing of the trachea, with colored crayon, drew the false membrane, left merely sufficent space for the passage of a small quantity of air, explained the manner of death in fatal cases, and manner of separation and expulsion of the membrane in favorable cases, the mortality statistics. I entertained him in this manner for more than an hour, when being satisfied that he then knew all about croup I ceased talking. Imagine my chagrin, when after a moment's silence, he said: "Well Doc., if you ever have another case of this kind, try goose greese, I believe that it will fetch it." Soon after this occurrence, I was called to attend a child in convulsions. Several women of the neighborhood were there. After the child had been quieted, the mother asked, "Doctor was that a worm fit." I answered that I thought not, that children could not have worms, unless worm eggs had entered the alimentary canal, and forgetful of my recent failure in my attempt to instruct the farmer, I launched out on a long lecture on the propagation, and evolution of different kinds of worms that infest the body. When I had concluded they all looked sulky. Soon afterward I heard from those women, they spread the word throughout the neighborhood, "That young doctor has'nt got a lick of sense, he thinks that worms lay eggs like hens." In these two efforts to teach the laity, my pupils learned nothing. But I learned a lasting lesson. Since then I have drawn no more diagrams, nor contradicted the mother who believes her child infected with worms.

TOXÆMIA IN CONTINUED FEVERS.

Each summer and autumn, throughout the South and West, we meet with many cases of fever which usually lasts three or four weeks. The duration of the disease is not influenced by quinine, and many important clinical symptoms of typhoid are absent. During the late war, some one unfortunately coined the name "Typho-malarial" for this fever. During the last quarter of a century, the subject has been discussed in medical societies everywhere, and each medical journal throughout the country, has contributed many pages of literature in support of, or in criticism of the name, yet the question is unsettled, and the debate is still on. Many physicians yet believe that in this fever, we have both the malarial germ, and the typhoid bacillus. A few appear to believe that these germs combine, or form a hybrid, a true typho-malarial germ. Others with more caution prefer the term "continued fever". This name does not convey any pathological suggestion and implies a period of duration which will generally be realized. Many physicians of today, regard this fever as a toxæmia, and its pathology due to an inflammation of the mesenteric, and others abdominal glands. And it will be observed in all cases of the fever, that heat and tenderness of the abdomen, appear as an initial symptom. These glands may receive the infection from several sources. Among the most frequent, is septic matter, of impure water, taken into the alimentary canal; from ptomains, which will appear in the canal, as a result of imperfect, or perverted digestion of food; therefore malarial fever, exposure to extreme heat, or any agent which lowers the power of the digestive organs, act indirectly in producing toxic matter in the canal. After those glands have become infected, the duration of the inflammation is self limited.

But by preventing further infection, the severity of the disease is greatly modified. The treatment pursued by those who hold this theory, is to disinfect the alimentary canal and keep it as nearly aseptic as possible throughout the disease. With this view, the bowel is emptied by a purgative dose of calomel, pan-cro pepsin and bismuth nitrate administered in large doses every four hours. Calomel is a good germicide to use in small doses during the first week. Flushing the bowel with hot water each night and morning, will rid the colon of septic matter. Acetanilid and quinine, during the first week, reduce the temperature, and lessen the oxidation of tissure and increase the patient's comfort. But after the alimentary canal has been well rid of sepsis the temperature can often be controlled by application of cold water to the abdomen. Slight diarrhœa is conservative, but if excessive should be checked by sulphocarbolate of zinc. given in three or four grain doses every three hours. The diet should be restricted to milk. While this line of treatment may not appreciably shorten the duration of the disease, it modifies its severity, renders the patient more comfortable, and increases his chances for recovery.

THE ABORTION OF IRON SALTS.

A tendency is noticable in the literature of to-day to discredit the therapeutic value of the iron salts. Especially has this tendency grown stronger since Bunge published the results of his studies on the utilization of the inorganic iron compounds. Although this chemist took nothing from the established value of iron, but only urged strong objections to the accepted theory of its physiological absorption; nevertheless, as a result of his dicta several American and European authorities have recommended the iron containing nucleo-albumins in preference to the salts of iron. Several new iron preparations have been manufactured, purporting to fulfill the conditions necessary for assimilation as outlined by Bunge.

Lepine has recently questioned the conclusions reached by Bunge, and by his own and other experimental work has demonstrated that a small quantity of iron salts can be utilized by the body, as some iron is absorbed from the duodenal mucous membrane, and the intestinal epithelial cells have the power, to a limited extent, of changing the inorganic to organic combinations of iron. Hypodermic injections of iron citrate have caused a great increase in the amount of hæmoglobin, and Lepine recommends its use by this method whenever its administration by the mouth seems futile. Yet small doses must be given, for as little as three grains injected hypodermically causes marked toxic symptoms.

The sum of our present knowledge on the absorption and assimilation of iron can be stated as follows:

The normal iron-containing foods which the body utilizes most readily are organic combinations of iron, probably belonging to the class of nucleo-albumins.

Large doses of the salts of iron, when introduced into the alimentary canal, stimulate the activity of the lining cells, and under this stimulation a very small quantity of iron is changed to an organic compound and thus absorbed. Most of the iron given is excreted.

Iron, however given, and in whatever form, is principally excreted by the intestinal mucous membrane. Iron salts when received as such in the blood are markedly toxic.

The salts of iron given by the mouth stimulate the absorption of the organic compounds, and also prevent the decomposition of the latter by neutralizing the sulphur compounds and other chemicals which are prone to destroy the nucleo-albumins. Manganese acts similarly.

Whatever organic combination of iron is given for absorption, either in the food or in some nucleo-albuminous preparation, it is well at the same time to give a salt of iron.

The long-attested value of iron salts has lost none of its former importance. The best treatment, for chlorosis and other simple forms of anæmia, is the administration at the same time of an organic and an inorganic compound of iron. Bunge went to one extreme in his deductions, but as a whole his observations on the absorption of iron are correct. Lepine has only modified them slightly.

TO THE SPRING GRADUATE.

It is but an effect to say "Don't worry"; but altogether a different affair not to worry. So it is when we give advise, it requires but an effort on our part and we have those who will listen; but how many are there, who will really practice what others have advised? I believe in a personality in our every effort; but I also believe we should have the tact to pick from advices, what may be for our good.

Listen, and we will try to candidly tell you why so many physicians are complaining, just as many people in other porfessions, or vocations, are complaining; not because they do not toil; but rather because they are so intensely devoted to their profession, or vocation, as a science, that they have no time left to devote to the business side of their vocation, or personal appearance or comforts, of themselves or families.

Physicians say our profession is overcrowded; but in what line of business can we escape competition? Let us rejoice that we are stimulated in our efforts; for this is the very life-blood of an enjoyable, and healthy existence.

Our success will depend, very largely, on how we approach a patient and how we leave him. Approach him with a smile and a nod; show intense interest in his case and economy time, in making your examination; give directions as to your prescribing, gently stroak the patient's forehead, or preform some other act of simpathy, tell him whether you will return or not, and be off with a good-morning—not a good-bye. Always present a busy air, whether on the streets, in your office or in the sick room.

Consider your porfessional work as profoundly secret, and your patients will soon confide in you; which is a great help in our professional work.

In apperance there are two more essentials, i, e, a clean, neatly dressed doctor and office. I would have a nicely furnished office,even if I had no table from which to eat my bread.

THE ATTITUDE OF THE PROFESSION TO CYCLING.

It is probably a fact that, previous to the advent of the safety, there has never been a form of outdoor exercise so permanently popular,and withal so benefical to urban and suburban dwellers as cycling. It is true that it would be possible for the anatomist and physiologist to devise a system which might distribute muscular activity more evenly throughout the body than is done in riding the wheel; but, hygienically considered, the advantages of the former over the latter form of exercise are vastly outweighed by other considerations.

It is difficult to over-estimate the influence of the mental state in its relation to the performance of the several bodily functions. For instance, substances very indigestible artificially may be eaten with impunity, if relished, while foods most easily digested in the laboratory may be promptly rejected when taken into the stomach if they are in anyway distasteful. A similar analogy holds in regard to bodily exercise.

Congenial companionship, an ever changing scene, a delightful sense of autopropulsion are some of the common mental accompaniments of cycling which have to be taken into account when an attempt is made to estimate the value of this form of exercise. In fact, on cycling the actual use of the muscles may be regarded as an incident subordinate to the many agreeable mental impressions. Aside from the criticism that it may be indulged in to excess—and this may be said of all good things—about the only serious objection that can be made to wheeling has reference to the kind of saddle used. While it is true that many young people can ride almost any form of saddle without experiencing any very immediately alarming symptoms, they may, at the same time, be doing themselves an irreparable injury. With some young, and nearly all older people, however, the case is different, because they not only rest a greater proportion of their weight upon the saddle, but the parts exposed to pressure by a faulty saddle—the prostate gland and pristatic urethra—are so sensitive that pain and serious injury may occur only too promptly, In growing boys it is of course, obvious that the parts should not be exposed to pressure or irritation. In girls different,but scarcely less serious results may follow, inasmuch as pressure or irritation of the external genitals may inaugurate the habit of masturbation.

The foregoing considerations constitute by no means all the reasons, but reasons enough, why physicians should careful investigate the saddle question, to the end that their patrons may avoid possible grievous injury.

CRIMINAL DEGENERACY.

A criminal always finds an imitator. If a dastardly crime is committed in a neighborhood, it is frequently followed by others, within a comparatively short period, like it in all essential details. There are a certain class of degenerates with distorted moral ideas who have little regard for the truths of religion or honesty, who magnify the ills of life and who are only too apt to commit crime. Only give them the knowledge of how to do it, and they will soon find, or make an opportunity. This is why we believe that the sensational newspaper accounts of crimes tend to produce many more. The reading of a full account of a murder, even the minutest details being printed, inflames the minds and passions of this class, and urges them to attempt the like. If crimes were simply mentioned in the papers, if trials were conducted behind closed doors, and if the account of the judicial death of the prisoner was only mentioned among the death notices, we believe there would be fewer crimes in this broad land of ours. Too often a pathetic account is drawn of the last moments of some man who has committed a vile murder and who under fear of death has repented. Divine mercy should not be cited as a quality too forgiving to punish a man who has taken human life wantonly.

CHRONIC CONSTIPATION.

Diseases for which we have no specific, and yet are consulted so frequently for relief, justifies our time for thought, in discussion. It is not because of expecting to be able to present something new, but rather hoping to the more systematize the causes which may produce constipation, thereby more nearly approach a scientific form of treatment for the same.

We will all agree that therapy for chronic constipation, especially when due to an atonic intestinal tract, is always more or less unsatisfactory; more without and less with the co-operation of our clients so afflicted. The physician, however, who shall elicit the cause and insist upon a systematic plan of treatment, shall be the more successful in coping with this trouble.

Let us divide the causes for this lesion into the following group:

1st. Loss of flesh and strength.
2d. Small amounts and kinds of food taken.
3d. Amount and kind of physical exercise.
4th. Sluggish secretory system.
5th. Chronic intestinal catarrh.
6th. Neurotic.
7th. Sex.
8th. Habits.
9th. Constitutional or organic causes.
10th. Acute fevers.
11th. Hemorrhoids and anal fissures.
12th. Inheritance (anatomical).
13th. Deficiency of salt, sugar or fat.

By examination we may elicit that one or more of above causes are present.

The symptoms may be so innumerable and varied that we find no words by which to express them. The absorption of ptomains, because of retained excrementitious matter, is one of the leading causes for so much nervousness, languor or general lasitude, headache, insomnia, melancholia, and, may I add, insanity? Yes, and irritability, lack of mental vigor, etc., etc.

But let us at once take the above stated causes in order, with form of treatment for each, which will perhaps sufficiently prolong this reading.

1st. If loss of weight and strength is the cause (which may be readily determined by an oral examination), intestinal peristalsis may be secured by ingesting strychnia—(permit me to state right here, that this drug is very seldom prescribed in sufficient quantities; no less than 1-20 to 1-30 grain should be given four or five times daily). The ingesting of strychnia and abdominal massage. The latter may be supplanted by laying a bag containing two pounds of shot on the abdomen for one hour, or permit it to remain on all night.

2d. If the kind of food taken has little waste, the bowels would be the more likely to obstipate. Bread, meat, fruits and many of the vegetables might be servicable in giving relief. (The vegetables which grow under the surface, as a rule, are more difficult of assimilation, than those which grow above the surface).

3d. The amount and kind of physical exercise taken, has a wonderful influence on alimentary peristalsis. The individual who is of sedentary habits is probably constipated. Exercise, and especially that which develops the abdominal muscles, will relieve this condition. Very good developers are: forced abdominal breathing, striking the abdomen, playing the flat of the hand in a rocking motion, with quite a good bit of pressure, over the abdomen; holding the weight of the body on the head and heels; and many other means by which the abdominal muscles will especially be effected, will readily suggest themselves.

4th. Sluggish secretory organs will invariably diminish peristaltic action of the bowels. I think the best remedy here is the mild chloride of mercury, and by far the best way of administration, is in small doses, say $\frac{1}{6}$ to $\frac{1}{4}$ grain every half or every hour until desired effect; or until we have the characteristic green discharges. Phosphate of soda, or Sprudell salt, administered in hot water before breakfast, or before each meal, and given for two to four weeks and gradually discontinue the use of same, are excellent.

5th. Chronic intestinal catarrh, because of the prolonged over-excitation, will produce constipation, and it is in this form that intestinal lavage is indicated, *par excellence*. The fluid should be warm and composed of milk and water or flax-seed tea and water. In quantity from 2 to 4 quarts carried high up into the bowel. A fountain syringe, hanging 5 to 6 feet above the nates, will produce sufficient force. Drinking large draughts of water should be encouraged.

6th. The neurasthenic is almost sure to suffer from this disorder; and the reverse is also true, i. e., the one who is constipated, is likely to be nervous, with its chain of symptoms. The best treatment for this disorder is to correct digestion by the administration of bromide of strontium in maximum doses with the addition of a laxative, such as the aloin, belladonna, strychnia and podophyllin pill. It has been my experience that in a neurasthenic gastric trouble, the best corrective is bromide of strontium.

7th. The peculiar pelvic anatomy and habits of females, make her more frequently the subject of constipation. Ovarian troubles, especially when effecting the left ovary, pelvic congestion, tumors and endometritis, are some of the causes, and of course, would need correcting in order to relieve constipation.

8th. Habits. We have indicated at sufficient length, as to the form of relief, when habit is the formal cause. Systematic exercise, regular hours for eating and sleeping, drinking large draughts of hot or cold water, just before retiring, and the first thing after getting up in the morning, will result encouragingly.

9th. Organic causes, such as hepatic torpor, enfeebled heart's action, nephritis, etc., are some of the organic causes for constipation. Euonymin, mild chlorid, podophylin, phosphate of soda and jaborandi—if the heart will permit—are some of the best remedies in removing these causes.

12th. I believe that a great many people inherit a peculiar anatomical condition of the sigmoid flexure, which has a marked influence in producing the trouble under consideration. I have frequently noticed on inserting the colon tube that in some subjects the sigmoid curvatures are much more acute and more of them, consequently the chances for constipation much greater. The most rational treatment in this form of cases, it would seem to me, would be forced dilatation of the anal sphyncters, or the retention of enemas for several hours at a time.

13th. In infant constipation it is frequently due to an insufficient quantity of these foods, i. e., fat, sugar, or salt, as Dr. Starr, of Philadelphia, gives it. In subacute or chronic constipation of the infant, I invariably prescribe cod-liver oil with success, in nearly every instance.

If due to a deficiency of either sugar or salt, we prescri be eithr, or both of these foods to the mother or infant, with good results.

INTESTINAL ANTISEPTICS IN INFANTS.

The bacteriologist has frequently pointed out that the production of sterility in the gastro-enteric tract by chemical antiseptics is impossible. Nevertheless, since the advent of antiseptics in surgery the clinician has utilized antiseptics in various forms of gastro-enteric infection. The results have varied so much that even today authorities differ in regard to their exact therapeutic value. Notable is it that pediatrists who treat infants and children in hospital practice have no exalted opinion of their value. In fact it seems that only in the milder forms of intestinal infection may we expect distinct beneficial results. In those cases, particularly in infants, in which the antitoxic and bactericidal principles of the animal lack only a minimum in curing an infection, it is probable that a slight inhibition of bacterial growth may soon lead to convalescence. But only those antiseptics should be chosen that leave no detrimental effect on the animal cells. For by using the more caustic and irritating germicides the cellular resistance is lessened. The chemical antiseptics which stand highest in the estimation of the clinician, are the salts of bismuth and various oils, as castor oil, oil of cinnamon, etc. In place of intestinal antiseptics evacuants are being substituted; as in surgery asepsis replaces antisepsis. In all the severe forms of gastro-enteric infection the measures which are by far the most potent are lavage and enteroclysis. When these procedures are fully carried out the whole alimentary tract may be cleaned. In addition, starvation for a short time robs the bacteria of their nutrient medium and thus a condition of sterility is reached far more complete than can ever be attained by the most promising antiseptics. In cholera infantum where the rapid loss of fluid becomes an important factor in the production of dangerous symptoms, the method of flushing the alimentary tract rather restores than deprives the tissues of water. In the milder forms of diarrhœa simple purgatives reap better results than any of the newer intestinal antiseptics. In fact, the effort of continually seeking and hoping to find an effective and ideal intestinal antiseptic should be discouraged; for unless our science of bacteriology undergoes a marked change, and the principles of bacterial destruction by artificial means are modified, it is not reasonable to assume the possibility of such a discovery. The pernicious habit of changing our intestinal antiseptics every year as the season for diarrhœa approaches, is certainly a point against the concept of intestinal antiseptics.

REMOVAL NOTICE.

The editorial and publication offices of the North Carolina Medical Journal have been removed from Wilmington to Winston, N. C. All communications and exchanges should be addressed accordingly.

Note—This does not apply to exchanges sent to our Associate Editors.

The foregoing notice explains itself. This move on the part of the North Carolina Medical Journal is, in our opinion, a wise one. Winston is a great deal better town than Wilmington. and the Journal will have many more facilities for getting out its issues in the new home. The Journal is the pioneer semi-monthly Medical Journal in the South, and it deserves great credit for this bold step in the direction of medical progress.

DR. RUSSELL BELLAMY TO MARRY.

Dr. Russell Bellamy, of New York City, formerly of Wilmington, N. C., is to be married to Miss Constance Trenholm, of New York, on the 20th of this month. Dr. Bellamy's many friends of Charlotte will be interested to learn of his approaching marriage.

THE CHARLOTTE MEDICAL JOURNAL acknowledges receipt of handsome invitation, and sends warm congratulations.

BOOK REVIEWS.

THE SURGICAL COMPLICATIONS AND SEQUELÆ OF TYPHOID FEVER. By WILLIAM W. KEEN, M. D,, LL. D., Professor of the Principles of Surgery, and of Clinical Surgery, Jefferson Medical College, Philadelphia. Based upon Tables of 1700 Cases, compiled by the Author and by THOMPSON S. WESCOTT, M. D., with a chapter on the Ocular Complications of Typhoid Fever, by GEO. E. DESCHWEINITZ, A. M., M. D. And, as an Appendix, The Toner Lecture, No. V. Philadelphia, W. B. Saunders, 925 Walnut St., 1898. Price $3.00 net.

Typhoid fever is one of the most common and most dreaded of all diseases peculiar to this country. It is a most treacherous disease. Its sequels and complications are varied and numerous. This work gives, in a pleasing and entertaining style, the most common sequels and complications of this disease.

How large a role the complications and sequels of typhoid play is well shown by the statement of Holscher that of the 2,000 fatal cases then tabulated only 24 per cent. died as a result of the typhoid infection *per se*, and 76 per cent from the various medical and surgical complications and sequels. In the present book the author has not only considered the six complications and sequels treated in the Toner Lecture, but has added a formal chapter on the Pathology of the Surgical Affections of Typhoid, and also twelve chapters on other surgical affections of particular organs and regions. Chapter II., devoted to the pathology of the surgical complications of the different organs as a result of typhoid fever is very profuse and instructive. Typhoid gangrene is considered in chapter III. English and American authors in the past have not given the attention to gangrene after typhoid that its importance deserves. Typhoid affections of bones and joints are next considered; then typhoid abscesses, typhoid hæmatomata, cerebral complications, etc. It is certainly a very valuable book to have in one's library and no regrets will ever be expressed at having invested in the purchase of it. It is well gotten up and finely bound in a durable and elegant style.

A SYSTEM OF OBSTETRICS WITH 534 ILLUSTRATIONS. Based upon a Translation from the French. DR. A. AUVARD, Accoucher to the Hospital of Paris, Revised from the Third Edition. By JOHN HOVIS HARTLEY, M. D., 1898. J. B. Flint & Co., New York.

In examining this book one among the many pleasing features noticed are the numerous and profuse illustrations. It contains four hundred and fifty five pages and is very practical, all extraneous matter is left out. In the beginning the author follows the usual customary outline, treating first menstruation and fecundation.

Following this is the chapter devoted to development and description of the human ovum. Next comes the chapter on modifications of the maternal organism. All these chapters are profusely illustrated. The parturient canal is next described very fully. Presentations and positions are given next. The regular symptomatology, diagnosis, prognosis and management of labor are given in regular order, The chapter on the forceps is very good and quite instructive. We can heartily recommend it to American medical students, and they will find it a mine of practical information on the subject with which it deals.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX. A work of Reference for Medical Practitioners, by various European and American contributors. 740 pages, and numerous full page plates and engravings. Sixteenth year. Price in cloth, $3.00. E. B. Treat, Publisher, 243 West 23d St., New York City. 1898.

We have before this expressed our admiration of this annual and our surprise at its comprehensiveness. This, the sixteenth year of this well known work, presents the admirable features of its predecessors, and deserves the large patronage that has been accorded it during the past five years. While the book is condensed very carefully yet it is sufficiently explicit to give a clear idea of every subject presented. Part I considers the Dictionary of New Remedies occupying 68 pages. Part II, which is by far the greater portion of the book is devoted to new treatment. The remaining portion is devoted to Sanitary Sciences, Practical Sanitation, etc.

The arrangement of the work is alphabetical, and with its complete index, makes it a reference book of rare worth.

In short, the "Annual" is what it claims to be—a recapitulation of the year's progress in medicine, serving to keep the practitioner abreast of the times with reference to the medical literature of the world. The Price of the book is $3.00.

No physician can afford to omit this work from his library, as he will find it continually of the highest value in reference and in obtaining approved and successful modes of treatment.

THE YEAR BOOK OF TREATMENT FOR 1898. A Critical Review for Practitioners of Medicine and Surgery, Philadelphia and New York, Lea Brothers & Co.

This is the fourteenth issue of this Year Book of Treatment. It retains all the excellent features that have won for it the favor of the medical profession. The contributors are: Dr. G. A. Gibson, (Diseases of the Heart and Circulation), Dr. Gustave Schorstein (Diseases of the Lungs and Organs of Respiration), Dr. E. S. Reynolds (The Treatment of Nervous and Mental Diseases), Dr. Herbert P. Hawkins (Disease of the Stomach, Intestine and Liver), Dr. Francis D. Boyd (Diseases of the Kidney, Diabetes, etc.), Dr. Archibald E. Garrod (Gout, Rheumatism, and Rheumatoid Arthritis), Dr. Sidney Philips (Infectious Fevers), Dr. Dawson Williams (Medical Diseases of Children) Dr. Dudley W. Buxton (Anæsthetics), Mr. W. Rose and Mr. A. Carless (General Surgery), Mr. W. J. Walsham (Orthopædic Surgery), Mr. Edmund Owen (Surgical Diseases of Children), Mr. Reginald Harrison (Diseases of the Genito-urinary System), Mr. Alfred Cooper (Diseases of the Rectum) Mr. J. Ernest Lane (Venereal Diseases), Dr. G. E. Herman (Diseases of Women), Dr. M. Handfield Jones (Midwifery), Mr. Malcolm Morris (Diseases of the Skin) Mr. Henry Power (Diseases of the Eye), Mr. G. P. Field (Diseases of the Ear), Dr. StClair Thomson (Diseases of the Nose and Throat), Dr. Patrick Manson (Tropical Diseases), Dr. E. F. Willoughby (Public Health and Hygiene), Dr. A. P. Luff (Medical Jurisprudence), and Dr. F. Tirard (Summary of the Therapeutics of the Year 1896–7, chiefly in reference to new remedies.).

The character and reputation of these gentlemen as lecturers and writers is sufficient guarantee of the knowledge and judgment with which the work has been done. It is a most compact and conveniently arranged volume. It has a splendid index which makes reference easy. He who wishes to keep himself up to date with the least possible trouble in regard to treatment cannot find a book that will better meet his needs than the Year Book of Treatment.

ATLAS OF INTERNAL MEDICINE AND CLINICAL DIAGNOSIS. By DR. CHR. JAKOB, of Erlangen. Edited by AUGUSTUS A. ESHNER, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic: Attending Physician to the Philadelphia Hospital. 68 colored plates, and 64 illustrations in the text. Philadelphia: W. B. Saunders, 925 Walnut St. 1898.

The work is divided into five sections. Section I. is devoted to examination of the patient and includes 18 pages. Section II. considers General Consideration upon Methods of Examination. Section III. treats of Special Diagnosis of Diseases of the Internal Organs. Section IV. is devoted to Epitome of Special Pathology and Treatment. Section V., the last, considers Therapeutic Notes. Under this Section the Dietetic Methods of Treatment, Hydrotherapy, Treatment by Climate and Baths, Physical Methods of Treatment, and the most important medicaments are given.

The plates are the most valuable and best we have ever seen, and convey more and leave a deeper impression than the most elaborate description. The work certainly occupies a distinct and important place of its own. It is beautifully printed and handsomely bound, and we recommend it most highly.

FLINT'S ENCYCLOPEDIA OF MEDICINE AND SURGERY. Second (1898) edition, 1555 pages, revised with the assistance of fifty-six contributors and thoroughly in line with recent advances in medical science. Cloth $5, Leather or Half Mor. $6. Publishers, J. B. Flint & Co., 104 Fulton Street, New York.

Several years ago we had the pleasure of reviewing Vol. I. and II. of this elegant Encyclopedia of Medicine and Surgery. The science and art of medicine as understood by representative members of the medical profession is herein presented in a concise, complete and eminently practical form. In the preface it is stated that having in view the ultimate object of the science and art of medicine—the prevention and cure of disease—particular stress has been laid upon the treatment of disease, the sections upon which will be found exceptionally complete, the exact doses and combinations of the various drugs recommended in nearly every case being given. Not only is the treatment given in full, but also the symptomatic indications, the diagnosis, terminations and prognosis forms a feature of more than ordinary value. The titles of the different subjects are given in alphabetical order and in bold black letters. In addition to the subjects usually included under practice of medicine, this work contains a full description of the diseases peculiar to women, diseases of the eye and ear, diseases of children, as well as lucid descriptions of the more common and the more important surgical operations. The work contains over 1500 pages of medium size, clearly printed and easily handled. Physicians will find it a most valuable and useful book.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynæcology, Obstetricts, Opthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology, and Specially Prepared Articles on Treatment. By Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by JUDSON DALAND, M. D., (University of Pennsylvania), Philadelphia; Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania, etc.; J. MITCHELL BRUCE, M. D., F. R. C. P., London, London, England, Physician to and Lecturer on the Principles and Practice of Medicine in the Charing Cross Hospital; and DAVID W. FINLAY, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen, etc. Volume IV. Seventh Series. Philadelphia: J. B. Lippincott Company. 1898.

All that is necessary in reviewing this volume of the International Clinics is simply to announce that it is ready for sale. The reputation is established. One always look forward with a great deal of pleasure to the publication of this "Quarterly of Clinical Lectures" on Medicine, Neurology, Pediatrics, Surgery, Genito-urinary Surgery, Gynæcology, Opthalmology, Larngology, Otology and Dermatology, by professors and lecturers in the leading medical colleges of the United States, Germany, Austria, France, Great Britain and Canada, for they are always full of fresh and useful information. This the fourth volume of the seventh series maintains its high pre-eminence as a periodical of great use to the practitioner. This volume contains 38 lectures from persons upon subjects of their own selection, of which they are most familiar, thus making it of infinite value to physicians. This volume contains many excellent illustrations, and forms an attractive as well as a usesul contribution to medical literature.

Therapeutics of Infancy and Childhood. By A. JACOBI, M. D., Clinical Professor of the Diseases of Children in the College of Physicians and Surgeons (Columbia University), New York, &c., &c. Second Edition. Philadelphia: J. B. Lippincott Company. 1898. Price $3.00.

There is probably no better fitted person to write a book upon Therapeutics of Infants and Children then Dr. Jacobi. His many facilities and advantages, both as a teacher and private practitioner, enables him to offer a compact picture of the therapeutics of infancy and childhood as he finds it to-day. This work contains 613 pages without the index, and is divided into twenty-five chapters. The first, and probably the most important, consisting of sixty-one pages, is devoted to feeding of sick children. The author thinks that dietetics must be considered a part of therapeutics. The two must go hand in hand. The next chapter treats general therapeutics. The author believes in medicines. "Advancing years and experience during a period of increasing exactness in medical matters have rather strengthened my belief than otherwise. What the knife is to the surgeon, drugs are to the physician. The knife does not make the surgeon, nor do medicines make the physician; both, however, are indispensable." Following this chapter is the one on the treatment of the newly-born. This chapter is very fine. When the reader finishes each chapter he will think the last is the best. There is quite a literary attraction and polish about the author's writing that one is easily lead on from chapter to chapter.

TRANSACTIONS of the American Laryngological Association. Nineteenth Annual Meeting, held in the City of Washington, D. C. New York: D. Appleton & Co. 1898.

No transactions come to our table that are neater, newsier and better gotten out than the one before us. It makes really a handsome volume. It remains a mystery why some Societies still retain the paper back. Dr. Chas. H. Knight, of New York, is President, and Dr. Henry L. Swain, of New Haven, is Secretary and Treasurer. Many good papers are presented and liberally discussed. Under several papers will be found some nice cuts.

A COMPENDIUM OF INSANITY. By JOHN B CHAPIN, M. D., LL. D., Physician in Chief Pennsylvania Hospital for the Insane, etc. Illustrated. Philadelphia. W. B. SAUNDERS, 925 Walnut Street. 1898.

This is a most useful book and supplies a real need to both physician and student. You find all the practical information needed without having to search through larger treatises. This treatise contains a clear, concise statement of the clinical aspects of the various abnormal mental conditions together with directions as to the most approved methods of managing and treating the insane.

Not only will the book be of great value to physicians alone, but written in clear untechnical language, it will prove a most useful manual for members of the legal profession, By the layman too it will be read with much interest and will furnish information of the utmost value, enabling him to recognize insane tendencies and to provide intelligently for any case of insanity in the family that he may be called upon to care for temporarily. The work is well gotten out.

HAWAII'S STORY BY HAWAII'S QUEEN, LILIUOKALANI, Cloth. Full gilt and gilt top, 21 illustrations, $2.00.

This is undoubtedly the most important contribution to the History of the Hawaiian Revolution, and the cause leading up to it, which has been presented to the American people and with the treaty of annexation now pending before the U. S. Senate should command the attention of the reading and thinking public. The writer is mistress of a clear, vivid and forcible style. She tells her story in a simple unaffected manner. The book is well printed and bound. She closes her book with this really eloquent appeal:

Oh, honest Americans, as Christian, hear me for my down trodden people! Their form of government is as dear to them as yours is precious to you. Quite as warmly as you love your country so they love theirs. With all your goodly possessions, covering a territory so immense that there yet remain parts unexplored, possessing islands that, although near at hand, had to be neutral ground in time of war, do not covet the little vineyard of Naboth's so far from your shores, lest the punishment of Ahab fall upon you, if not in your day in that of your children, for 'be not deceived, God is not mocked.' The people to whom your fathers told of the living God and taught to call 'Father,' and whom the sons now seek to despoil and destroy, are crying aloud to Him in their time of trouble. and He will keep his promise and will listen to the voices of His Hawaiian children lamenting for their homes.

"It is for them that I would give the last drop of my blood; it is for them that I would spend, nay, am spending, everything belonging to me. Will it be in vain? It is for the American people and their representatives in Congress to answer these questions. As they deal with me and my people, kindly, generously and justly, so may the Great Ruler of all nations deal with the grand and glorious nation of the United States of America."

ALASKA: Its Neglected Past, Its Brilliant Future. By BUSHROD WASHINGTON JAMES. 12mo. pp. 444. Philadelphia: The Sunshine Publishing Company. $1.50.

Dr. James has for a long time been a student of Alaskan subjects. The descriptions in the book are based on actual observations. The book contains many beautiful illustrations and maps. The questions of sealing and boundary are thoroughly discussed. The gold subject comes in for its share. The book, no doubt, will arouse much interest in the country, and its needs may lead to comprehensive legislation by Congress. The book makes a very neat and pretty volume.

BUDDHISM AND ITS CHRISTIAN CRITICS. By DR. PAUL CARNS. 12mo. pp. 316. Chicago: The Open Court Publishing Co. $1.25.

This is the most systematic study of Buddhism that has recently appeared in the English language. The book is not hostile to Christianity. The work will give an insight into the teaching of Buddhism. The book can be read with interest. It contains 315 pages and is well bound.

TRANSACTIONS of the Ohio State Medical Society. Fifty-Second Annual Meeting. held at Cleveland, Ohio. Edited by R. HARVEY REED. M. D., Columbus.

These transactions come to us regularly, and are always up to date, and full of very useful information. These transactions are probably among the best that are published. The editor has deviated somewhat from the old time method of publishing the transactions, and has compiled the papers and discussions on similar subjects into chapters, in order that those who are interested in looking up any particular subject, can, without delay, turn to the chapter on that subject and obtain all that is published without the necessity of hunting through the entire volume. The editor has also prepared a good table of contents. We are glad to note these improvements, and trust that other Societies will follow the example.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA, 1897.

These transactions come to us regularly every year and I know of none more neatly printed and bound or contain more interesting and scientific papers. Dr. R. H. Taylor, of Griffin, is Secretary and Dr. James B. Morgan is President. They form a nice volume of over 500 pages.

TRANSACTIONS of the Medical Society of the District of Columbia. Vol. I. 1897.

We have but one fault to find with these transactions, they should be better bound. The printing is excellent, the paper splendid, and the subject matter of a very high order. They compose a volume of 246 pages, double column.

TRANSACTIONS of the National Eclectic Medical Association of the United States of America. 1897 and 1898. Edited by W. E. KINNETT. Secretary.

The transactions form a well bound volume of 280 paper, with a good index. The paper is clear and printing good. The reports, papers and essays are fully discussed.

LITERARY NOTES.

LIPPINCOTT'S MAGAZINE FOR APRIL, 1898.—The complete novel in the April issue of Lippincott's, "Meriel," is a love story in the peculiar vein of Amélie Rives, Princesss Troubetzkoy. The scene is laid mainly in Italy, though the highly selected hero and heroine are English.

Other stories are "Ths Ark in the Wilderness," by Alice MacGowan; "The Recruit who was Rushed," by Charles B. Lewis; "William Tyrwhitt's Copy," by Bernard Capes, and "A Boundary War," by W. H. Babcock.

"The Strangest River in America," the Colorado, with its terrible canons and Storms, and Dr. Harvey B. Bashore on "The Making of Man."

"Northward to the Harlem, and Beyond," is the concluding paper of Dr. Theodore F. Wolfe's series, "Some Literary Shrines of Manhattan." James M. Scovel's paper on "Thaddeus Stevens" includes some personal reminiscences.

Emily Mayer Higgins writes briefly of "The Unterrified." Under the heading, "No New Hands Wanted," Frederic M. Bird considers the real or supposed prejudice against beginners in literature.

Henry Willard French's observations and experiences "In an Australian Camp" will be found both interesting and instructive. The tribal battles of the Aborigines, as witnessed by him, were noisy rather than destructive.

The poetry of the number, apart from quatrains by Edith M. Thomas and Clinton Scollard, and couplets by Carrie Blake Morgan and Robert Gilbert Welsh, is by Florence Earle Coates and D. H. R. Goodale.

THE APRIL FORUM.—The reader must be hard to please who does not find in the April Forum something to suit his taste. Matters commercial, political, musical, and literary, all are duly represented; and the list of writers includes none that is not an expert in his own particular sphere. The table of contents is as follows: "The Dangerous Demands of the Interstate Commerce Commission," Milton H. Smith; "England and France in West Africa," Thomas Gibson Bowles, M. P.; "The Political Situation in Europe," Maj.-Gen. Nelson A. Miles; "Central America: Its Resources and Commerce," William Eleroy Curtis; "The Economics of Genius," John Mackinnon Robertson; "The Handel Revival in Germany," Prof. Bruno Schrader; "The English Governing Oligarchy," Sidney Low; "Professor Munsterberg's Attack on Experimental Psychology," Prof. Charles B. Bliss; "Is there Work Enough for All?" Hon. William T. Harris; "The Kalevala," Charles Upson Clark; "Recent Histories of Literature," Prof. William P. Trent.

The Cuban Crisis naturally demands more space in the editorial department of the American Monthly Review of Reviews than any other single topic. The whole matter is reviewed in the light of the latest and most authentic information received up to the time of going to press. The Review is convinced that the country desires and will demand intervention in Cuba, that the real question at issue is the relief of Cuba, not the settlement of the Maine incident, and that Spain's final withdrawal from the Western hemisphere will be the only satisfactory termination of the present trouble.

No one who is interested in the best contemporary French literature can afford to miss the series of sketches and stories by Paul Bourget, which will begin in The Living Age for April 2. These sketches have been but recently published in France, and this is their first appearance in English dress. They are translated for The Living

Age by William Marchant. They are extremely clever and characteristic.

The chair of Diseases of the Eye, Ear and Throat at the Medical College of Virginia, made vacant by the death of Prof. Charles M. Shields, will be filled at the annual meeting of the board of visitors of the college April 21st. All applications, accompanied by credentials, should be forwarded to Christopher Tompkins, M. D., Dean, Richmond, Va.

1818. Dr. John M. Strong. 1898.

On the night of Friday, March 11th, Dr. John M. Strong died at his country home, near Charlotte, aged 80 years. Dr. Strong had been an active practitioner of medicine in Mecklenburg county for more than fifty years, graduating from the Jefferson Medical College of Philadelphia in 1847. To the very evening of his death he was busy in the practice of his profession. He was a country doctor of the old school, so fast disappearing from among men, kind, jovial and unselfish, compelling the love and respect of all who knew him well; his patients were his people, his more than friends.

Unlike many physicians settled in a paying practice he did not allow his methods to become old and antiquated, but by a studious habit which clung to him through life he kept always informed and in touch with all that was latest and best in his art. His was a noble work, well performed. Day and night has he gone to minister to the sick and the afflicted, and his good deeds extended to the third generation of them who loved him as their best friend in time of sorest need. He was a representative man of all that was high and noble in the art of medicine, and the profession in general has lost a real part of itself by his death. To know what he was one must ask the child whose fevered hands instinctively went out to him for help, or the agonizing mother whose quick despair must pass to death without his aid, or the aged father whose last dim hours were made endurable by his skill and sympathy. It is well in this age of professional degeneracy, when the spirit of commercialism is so powerful that we compute the work of alleviating human suffering in dollars and cents, to stop but for the moment the clamor about bills and collections and contemplate for a little while the infinitely higher life in its relation to an eternal reward. Strong in name, Strong in work and worthy deeds, Strong in love and sympathy, Strong in faith and hope in the hereafter, he has gone to his reward, to "join the choir invisible of those immortal dead who live again in minds made better by their presence." "Knowing that whatsoever good thing any man doeth the same shall he receive of the Lord, whether he be bond or free."

Auto-Intoxication in Diseases of the Nervous System.

Dr. Daniel R. Brower read a most interesting paper on auto-intoxication in its relation to diseases of the nervous system before the Illinois State Medical Society. (Medical Standard).

"The discovery of the neuron," said the author, "has resulted in making clear some of the dark passages in physiology and pathogenesis, and the dynamic changes by alcohol and other extrinsic poisons, that have been so marvelously demonstrated by Andriezen, VanGeisan and others, and the reasonable inference that intrinsic poisons are equally powerful in establishing pathologic conditions, opens up a new line of important therapeutic investigation."

That various nervous diseases are produced by alcohol, lead and other extrinsic poisons, by the toxins of various infectious diseases, by uremia, by sunstroke, and by experimental thyropravia, is universally accepted, and moreover, the neuro-cellular lesions that are produced by some of these poisons have been demonstrated.

Albu suggests the following general classification of auto-intoxication:

1. Auto-intoxications from the suppression or disturbance of the functions of an organ *i. e.*, auto-intoxication of thyroid gland, pancreas, liver, supra-renal capsules, producing myxedema, diabetes, acute yellow atrophy and Addison's disease respectively.

2. Auto-intoxications which occur from anomalies in general metabolism without definite localization, such as rheumatism, gout and oxaluria.

3. Auto-intoxications which are caused by the retention of the physiologic products of metabolism in different organs, such as poisoning due to extensive destruction of the skin by burning, carbonic acid poisoning uremia and eclampsia.

4. Auto-intoxications due to the over-production of physiologic and pathologic products of the organism, such as ammonemia, acetonuria, diaceturia, diabetic coma, Basedow's disease, etc. The most frequent source of this intoxication is the gastro-intestinal tract.

Bouchard has demonstrated that the normal man manufactures enough of these several poisons each day to destroy the body if retained within it; he has separated from the urine of such an individual seven toxic substances, two of which will produce convulsions, one myosis, while one is antipyretic, one is narcotic, one is diuretic and one is a sialagogue. The urine from a maniacal patient, when injected into an animal, will give rise to excitement and convulsions; that from a melancholiac, to depression, restlessness and stupor.

The importance of auto-intoxication can not be overestimated; its recognition in any given case gives the keynote to treatment. The diagnosis is to be made by a required examination of stomach and colon, by an examination of the stomach contents for evidences of fermentation, and of the urine for the presence of indican and diminished total sulphates. The hemoglobinometer and the hematocrit will aid in a diagnosis by showing diminished hemoglobin and diminished number of red blood corpuscles.

The treatment of these various forms of auto-infection consists in the use of hematinics, diet, the simple bitters and strychnine, faradism, lavage. intestinal antiseptics, such as beta-naphthol, benzo-naphthol, bismuth salicylate and guaiacol carbonate. Colonic impaction, which is a very frequent condition in chronic invalids, is to be treated by flushing in the knee-breast position, with normal saline solution at body temperature. This should be followed with aloetic laxatives and intestinal antiseptics. As a rule, these cases of auto-intoxication will require hematinics; Bland's mass, freshly prepared, and combined with extract nux vomica and arsenic, has given the best results.

The Period at Which Old Age Begins.

Dr. Lease (Journal of the Am. Medical Association) in discussing this subject says:

Some men are twenty years younger physically and mentally than other men, of the same age. It is self-evident, then, that old age does not begin at any set time, so far as the divisions of time divide the periods of life, but that it has to do with that subtle agent known as the vital force, an acquaintance with which enables the analytical mind to become proficient in prognosis by weighing in the balance the vitality on one side with the pathology on the other.

The indication of old age may be noticed by ocular inspection. The figure stoops, the walk is less elastic, the rounded figure gives place to the spare habit of body, the wrinkle of time mounts the cheek, while the frost of many winters mantles the brow. The typical healthy person who attains old age is spare of body, and old age emphasizes this fact by causing a paucity of adipose tissue. So the wrinkle of time, after all is kindly in nature. Physiologically, we notice that a diminution of the physical energy is accompanied by a corresponding diminution of the power to eliminate waste material from the body. Elasticity and strength give place to hardness and brittleness of nearly all the tissues of the body. The general health may be good, because there is a harmonious balance between the action of the nervous system and the circulatory system. However, the former is less responsive to external stimulation, and the latter is less vigorous in old age. The vital processes conducted by the circulation, respiration, and metabolic changes in the tissues are less active. There are diminished adaptability of the whole system to changes in the environment, and less ability to meet the requirements of emergencies, such as sudden demands of muscular and mental strain.

The senile conditions and diseases are numerous and obvious. In the first place weakened digestion and assimilation; the weakened vigor of the circulation and glandular system necessarily weakens the power of eliminating the excrementitious sub. stances, which gives rise to pernicious nutrition, and that in turn is the cause of the tendency to develop malignant or benign growths in different parts of the body in old age. The strong tendency to over-eat and under-drink, together with the natural decline of functional power, gives rise to a condition of lithemia, which is the prime cause of the majority of deaths in old age. In the healthy state that great glandular furnace and chemical laboratory, the liver, is capable of transforming an excess of nitrogenous matter, which may result from metabolism of tissue or exist in the food consumed, into the highly soluble excrementitious substance known as urea. This excrement is eliminated from the blood mainly by the kidneys, and to a much less extent by the skin. Now in old age, with the functional power and natural vitality on the wane, together with the strong tendency to overtax this function of the liver, we find this waste is not converted into urea, but into uric or lithic acid, a comparatively insoluble excrementitious and toxic substance, which, if it appear in the blood in sufficient quantity, and is long enough continued in circulation through the urinary tubules, sets up irritation and inflammation, which inevitably impairs the function of the renal epithelium, and we find this poisonous substance is not eliminated from the system, but accumulates in the blood. This explains why old people are almost universally troubled with disease of the liver, kidneys, bladder, and prostate gland. The unstable circulation, atheromatous changes and brittleness of the walls of the blood vessels, with the tendency to overtax the digestive apparatus, is the cause of many old people going to "that bourne from whence no traveler returns," by the apoplectic route. Hereditary diseases naturally manifest themselves when the vitality is upon a low plane, when the general health is below a certain level; so we are not surprised to find certain dyscrasic and latent tendencies manifesting themselves at this period of life when the natural vitality is waning. The diseases most frequently found to be the cause of dissolution among the aged are pneumonia, diseases of the liver and urinary organs, consumption, cancer, apoplexy and gangrene.

The enemy to longevity, the author continues, is self-indulgence. People who have reached an advanced age may prolong their lives and greatly add to the comfort of their declining years by diminishing the quantity of food ingested; by taking only easily digestible food; thereby avoiding too large a residue of waste matter, either in the intestinal canal or in the form of excrementitious matter in the blood.

Normal Labor.

The writer's subjective symptoms compel him to believe that he is pregnant with an idea. To deliver the same under normal conditions, it will require at least 300 articulate throes and perhaps a dose of quinins between stages, to brace up our grey matter during the travail. It seems like daring to call into question the wisdom and mercy of the Creator, to ask if labor is a condition of health or of disease. The laws ordained by an Allwise Providence to propagate and perpetuate the only species, that is said to have been created in God's own image, have their legitimate results, and, but for the violation of those laws, labor ought to be attended by little or no inconvenience. Of course we have cases every day, what we term "Normal Labor," but has it ever occurred to you, that at the beginning of the second stage, no matter how favorable the conditions, no accoucheur, can forecast with absolute certainty a normal progress through the second and third stages. We think we can. We are bold enough to back our judgment by our actions. The physician arrives and after ordering the necessary preliminary arrangements, proceeds to make his diagnosis of the case. By palpation and digital examination he satisfies himself that he has a living tumor presenting and everything is perfectly normal. With the wisdom of Solomon aglow upon his face (as though the patient was made of glass and lit up by electricity) he rolls his optics athwart the room and announces to the grandmothers present that everything is normal and that the labor will terminate favorably in a few hours. That he has sighted the little Columbus off the promontory of the sacrum, in latitude and longitude 60 degrees, and that he is slowly but safely drifting along the equator in the axial curve towad the pelvic outlet. Then after relating one or two jokes and perhaps roasting one of his professional brethren until the paint curls on the ceiling, asks for a bed in some retired corner of the house and informs those present that when the child cries, for them to call him at once.

In the meantime the mother in her travail goes down to the edge of the dark river. If the physician had been present, he could have rendered many minor helps. Perhaps the pains grew less in frequency and force which could have been remedied by the timely administration of a dose of quinine. Perhaps there occurred a time by turning the patient to one side or the other would have hurried the labor. Numerous helps of like nature could have assisted in rendering the patient more comfortable and also helped to terminate the labor earlier. But the physician sleeps on sweetly dreaming of the vernal springtime, when greens are ripe and the rhubarb pie gets in its graft—of summer's halcyon days when the woodpecker pecks, and the bicycle girl appendicites—of the autumn's golden glow, when the buckeye bucks and physicians have lovely roads. Just here the little sailor sights land, his cries are heard by the doctor who hurries to the patient's side, cuts the cord, the infant hits the terrestrial globe and starts on his earthly pilgrimage to the grave. There is great rejoicing. One lady attendant declares that the child must be raised on Horlick's Malted Milk. Another avers that the babe must nurse its mother's breast for it is absurd to think that such men as Julius Cæsar and George Washington were raised on a bottle. During the argument the doctor slips out and goes on his way. This, in brief is the history of most of our normal labor cases. J. J. Hawkins, M. D.

Canton, Mo.

The Thirty-first annual meeting of the Mississippi State Medical Association will convene in Jackson, Wednesday, April 20th, 1898.

Toxic Infection or Ptomaine Poisoning.

One factor which is frequently overlooked in the treatment of children is toxic infection or ptomaine poisoning. One is frequently called to attend a child and finds the little one presenting these symptoms :— Mild delirium. Temperature 103 to 104, pulse rapid and hard—120 to 140. Tongue coated and breath foul. Skin dry and hot, face presenting a tired expression, especially noticeable in the eyes. Vomiting and pains over the abdomen, usually constipation. On questioning the parents we find the child has complained for some little time, has had slight headache, not much of an appetite ; has been cross and peevish and has had "stomach-ache." The fever in 50 % of the cases is ushered in with a chill. If a case of this nature happens in a district where there is more or less malaria the practitioner diagnoses it as such and prescribes quinine. Then is quite surprised that the condition does not yield to his specific treatment. In twenty-four or forty-eight hours after seeing the patient he begins to think strongly of typhoid as the symptoms begin to resemble those of that disease. In reality they are due to ptomaine poisoning. Toxic infection taking place in and from the colon and possibly intestines. Make a careful examination by exclusion. If possible examine the blood for the malarial parasite and use Widal's test for typhoid. In all probability both examinations will give negative results. While doing this, place the child on lime water and milk, half and half, every four hours. Give albumen water every two hours. For medication

℞ Hydrarg. Chlorid. Mite............ gr. I
Sodii. bicarb...................... ʒss
M. et ft. n Chart No.............. vi
Sig. one every hour.

With the last powder, one to three grs. of Rochelle salts, according to age. Continue the restricted diet for a few days. We believe the condition described is frequently wrongly diagnosed and mistreated.

The following case, related to me by a physician, illustrates so forcibly the necessity of always making a careful diagnosis, that we print it in detail. J. S., Sewing machine agent, age 26, single, venereal history negative, moderate drinker, sleeps well, appetite good, some headache. Has been troubled for some time with constipation, which necessitated the daily taking of drugs. In May, 1897, had a very severe attack of abdominal pain, coming on after a hard day's work. His physician treated him for peritonitis. Since then he has consulted several physicians, all of excellent reputation. Some diagnosed his case as intestinal indigestion, others as hysteria. Medication produced no apparent benefit. When the case came under the observation of the gentlemen furnishing me this history the following was the condition observed. The patient suffered nearly constantly with a dull pain in the lower portion of the abdomen, accentuated on the right side—change of posture affects the pain, increased on stooping over or sitting down, better when he assumes a posture of rest. In the morning has no pain, but begins to feel it when he has been up a short time. Careful inspection and palpation of abdomen revealed nothing abnormal. Examination of heart and lungs negative. An examination of the inguinal canals revealed the cause of the pain and constipation, and showed why the pain varied with change of posture. Both rings, especially the right, were larger than normal ; and when the patient stood up the gut dropped slightly into each inguinal canal. A light double truss completely relieved the trouble. Pain and constipation are things of the past. A thorough examination should be made in all cases. Pain is abnormal. It is due to a cause which it is the duty of the physician to discover. Accuracy of diagnosis and attention given to every detail is that which makes the difference between the much sought after consultant, and the careless physician, who makes a hasty diagnosis and writes an equally hasty prescripton.

W. A. GRAY.

Morphine, Cocaine, Chloral, Etc.

Anent the prescribing of such bewitching drugs as morphine, cocaine, chloral etc., it is well for medical men to bear in mind what the scriptures have to say on the subject.

There, "witch" or "sorcerer" were in many instances "*pharmakos*," i. e. poisoners—users of drugs for debauching purposes. "*Pharmakeia*" were the drugs used to accomplish this end.

Jezebel, whose name stands to-day as a synonym for all that is wicked in woman, had her *pharmakeia* and they were spoken of as "many," 2 Kings 9 : 22. In Rev. 22, 15 we are shown the end of all *pharmakos* : "without are dogs, *pharmakos*, etc. Comparing this last statement in Revelation with the incidents recorded in 2nd Kings, 9th chapter, attendant upon Jezebel's death we find a perfect fac simile. Her body was thrown outside the city and destroyed by dogs.

The term *pharmakos* is not necessarily restricted to mean only the user in person of debauching drugs, but may include those who debauch others by this means. Physicians may be properly termed *pharmakos* who prescribe bewitching drugs with no safeguards against their abuse. Who use them to accomplish an immediate, legitimate end, but have no thought nor care of ultimate results. Who know well the law of "cumulative attraction" to narcotics but ignore it entirely. Who are often the means of making *pharmakos* of others, but are ignorant of, or ignore the fact that this makes *pharmakos* of themselves.

Such drug users and drug dealers are *both* included in the many scriptural condemnations of "witches" and "sorcerers." No stronger reasons than scriptural can be given to cease such practices. No stronger argument than scripture can be made to physicians, looking to the same end. "They which do such things shall not inherit the kingdom of God." Gal. 5. 21.

W. W. Potter.

Sources and Diagnosis of Pyuria.

According to H. A. Kelly (American Journal of Obstetrics) the urethra furnishes three possible sources of pus in the urine: (1) Skene's glands, in which it may be detected by pressing them up under the pubic arch and squeezing downward and outward; (2) a urethritis or urethral ulcer, in which a two-glass test shows pus in the first portion of urine passed and the second clear; (3) suburethral abscess. The vesical sources of pyuria are: (1) cystitis and trigonitis, (2) foreign body, (3) ulcer, all of which may be diagnosed by examination through a cylindrical cystoscope, with the patient in the knee-chest posture. It is particularly important to let air into the vagina before dilating the bladder. Extravesical sources of pyuria include inflammatory diseases of the Fallopian tubes, extrauterine pregnancy, acetabular or psoas abscess, abscess from the vermiform appendix, cystitis from intestinal fistula, and extension of carcinoma from the uterus. The presence of extravesical abscesses which have ruptured into the bladder may be shown by finding a red, mammillated, edematous mucosa surrounding the opening. The situation of a pus focus in the ureter or kidney may be discovered by inspection of the ureteral orifice, which will be intensely reddened, mammillated, or ulcerated; or by passing ureteral or renal catheters, this method showing the exact location of the infection in the upper urinary tract, whether in the ureter or kidney. If pus in the renal pelvis is too thick to flow through the catheter, it may be thinned by injecting boric-acid solution, and in some cases by manipulating the kidney between the hands. The nature of such a pyelitis must be determined by bacteriological examination of the pus, by investigation for a history of previous hydronephrosis, and examination for the presence of a calculus. If there is a stone in the kidney the catheter may bring down fragments; and if its end is covered with a mixture of dental wax and olive oil, the latter will be scratched by contact with the stone. When tubercle bacilli are found in urine taken from the upper urinary tract their source is usually the renal substance.

Atropine—Its Use in Eye-disease.

Dr. E. D. Capps (Southern Med. and Surg. Journal) places iritis as the most important disease of the eye in which this drug is indicated. Here the drug is capable of doing the greatest good, and its early use in the disease may prevent permanent impairment of sight of the eye, or even the loss, by breaking up or avoiding the formation of posterior adhesions which would otherwise result in secondary destruction of the eyesight. In ulcerations of the cornea, also in keratitis, atropine is used more or less empirically, and accomplishes much good. This is, perhaps, due to its effect on the iris, which is in these cases mostly more or less involved. Atropine is contraindicated above all things in a glaucomatous eye, or in one that has that tendency. Its use would prove fatal to the eye. To understand this correctly, it is necessary for a moment to consider the physiology of the eye. The ciliary body secretes the aqueous humor which pours into the anterior chamber. At the periphery of this chamber is a net work of loose tissues known as Fontana's spaces, into which the fluid pours first, thence into Schlemm's canal, and thence into the veins. Through the integrity and patulousness of these canals, the intraocular pressure is regulated, and if atropine is instilled, the pupil is caused to dilate, and the flabby iris is thrown back against and partially closes Fontana's spaces, thus interfering with the ocular circulation. Now one of the first symptoms of glaucoma is an increased intra-ocular pressure, and if atropine is used in such an eye, it only makes it much worse, by doing just the opposite to what should be done, namely, increasing the intra-ocular pressure instead of diminishing it, for it is the increase in the intra-ocular pressure that destroys the eye.

Atropine should never be used in persons over 40 years of age, except in iritis, without a very careful examination by an experienced physician. for the reason that after this age there is more or less hardening of the tunics of the eye, and there may be a tendency to glaucoma, which should be set up if the drug is used.

Atropine should not be used in conjunctivitis, for it will aggravate rather than relieve the disease, and frequently when put in a healthy eye for the purpose of dilating the pupil and paralyzing the accommodation, will set up a violent conjunctivitis; it should therefore not be used in conjunctival inflammations, unless they are accompanied by ulcers of the cornea.

It should be used with great care under any circumstances in children under the age of 2 or 3 years. Even small quantities of a weak solution instilled into the eyes of infants have been known to set up dangerous symptoms of poisoning. If found necessary to use it in the eyes of infants, it is best to employ one-fourth or one-third per cent. and drop one drop in one eye at a time, later putting it in the other.

Milk.

In the course of some observations on the composition of human milk, Alfred H. Carter gives the results of the analysis of 94 samples of human milk, with a description of his methods of analysis. (American Journal of Obstetrics). The analyses show that wide variations in every ingredient of milk are met with. The widest variations are met in the fatty constituents, the largest amount being 8.82 per cent., while the lowest is only 0.47 per cent.; proteids vary from 4.05 per cent. to 1.02 per cent.; sugar varies from 8.89 per cent. to 4.38. Among 42 children under observation, 5 died; in each of the fatal cases, with one exception, the percentage of proteids was high, ranging from 2.05 to 4.02 per cent. In every case but 3 of the whole number in which the proteids exceeded 2.5 per cent., the milk disagreed. Variations in percentage of other ingredients seem to be much more readily borne. It was found that the proteids and ash decrease as lactation advances and that sugar has a tendency to increase.

In a communication concerning some of the ways in which milk becomes pathogenic, Sheridan Delepine gives the results of examinations of over 110 samples. Part of these were obtained from diseased cows, the milk being carefully drawn into sterilized vessels and sent unmixed to the laboratory. Other samples were collected at railway stations in sterilized bottles from cans containing mixed milk just arriving from the farm. A most striking outcome of the comparison between these two kinds of samples is that the milk of markedly diseased cows is much less often capable of producing irritation than the ordinary mixed milk supplied for consumption, and whilst 71 per cent. of the latter are capable of producing severe infection, rapidly fatal, none of the milk obtained direct from the udder, in sterilized vessels, produced any affection of comparable intensity. Of the mixed milks, only 37.74 per cent. were free from noxious properties, while 45.76 per cent. of the unmixed milks showed the same quality, although 23 out of 24 of the latter had been taken from tuberculous cows and more than one-half of these had diseased udders.

Action of Quinine Sulphate in Strengthening Labor Pains.

While quinine sulphate has little or no power for inducing labor pains, Schwab is positive that after uterine contractions have once begun, the administration of quinine causes them to become rapid and energetic. He obtained excellent results from its use in all cases of prolonged labor due to uterine inertia. While quinine strengthens the labor pains, it does not tend to induce abortion. Unlike ergot, it causes intermittent and not tetanic contractions, and may, therefore, be prescribed without danger during the second stage of labor. Its action begins in about one-half hour; the drug is therefore the best given in two doses of eight grains each, within a period of ten minutes. Quinine is indicated if, after rupture of the membranes, labor is unnecessarily prolonged on account of uterine inertia, the mother is exhausted, and there is danger of the child becoming asphyxiated. While quinine has a tendency to produce post-partum hemorrhage, this is easily controlled by massage of the uterus.

How to Make a Mustard Plaster.

Never place a cold mustard plaster on a patient. The shock is like a sudden plunge into cold water. Before you commence to mix the paste be sure you have all the necessary material at hand. First put a large plate where it can get warm, not hot. Then stir the mustard and flour thoroughly together before you add the water, which should be tepid; stir in enough water to make a paste about the consistency of French mustard. Place your cloth (an old handkerchief is best) on the warm plate, spreading the paste in the middle of it, leaving a margin wide enough to lap well over on all sides. Do not remove paste from the plate until ready to apply. Place a folded cloth between paste and patient's clothing.

The Management of Patients Before and After Laparotomy.

Dr. Frederick Holme Wiggin, at the close of an excellent article (Medical Record), recapitulates a number of points in this connection, which, being considered of minor importance, are often overlooked :

1. The importance, whenever practicable, of prolonged preparatory treatment of patients about to undergo an abominal operation.

2. The importance of the administration of cathartics in the early part of this period, followed by large enemas for the purpose of cleansing the intestinal tract.

3. The importance of keeping a record of the body temperature, respirations and pulse rate, for several days in advance of the operation, and in making a final examination of the urine.

4. The necessity in the female of arranging to have the operation performed a few days after the menstrual period, and the cleansing of the vagina, even when it is in tended that the operation shall be by the abdominal route only.

5. The administration of a small quantity (one ounce) of peptonized food containing stimulants, two hours before the anesthetic, for the purpose of lessening the tendency to nausea and vomiting after recovery of consciousness.

6, The necessity of the anesthetic being given by an experienced physician, and in the smallest possible quantity.

7. The necessity of protecting the patient's body properly with clothing and blankets during the operation.

8. The advantage of stimulating the pulse before the heart has become much exhausted, and of using intravenous saline injections before the radial pulse has become extinct.

9. Leaving in the abdominal cavity, after free irrigations, a quantity of hot saline solution, for the purpose of stimulating the patient, preventing (?) the formation of intestinal adhesions and lessening the danger of septic peritoneal infection.

10. Making the patient comfortable by change of position during the first few days of convalescence, and by the use of the rectal tube.

11. Early administration of food in reasonable quantities at proper intervals.

12. Withholding stimulating enemata after operations in which firm and extensive pelvic adhesions have been broken up.

13. Deliberation before re-opening the peritoneal cavity in a given case of supposed concealed hemorrhage.

14. Washing out the stomach as soon as intestinal paresis is diagnosed, and the persistent use of saline cathartics till the bowels move.

15. The importance of not administering cathartics to those convalescing from abdominal operations, and who are pursuing a normal course, too early or in too large doses

Treatment of Constipation.

Dr. Pfaff (Boston Medical and Surgical Journal) says : That treatment which will remove the cause of constipation is the best. The causes are varied : retro-flexed uterus, intestinal stricture, anemia, pulmonary congestion, may be mentioned among the number.

Agents which may be beneficial are mentioned as follows : hygienic measures ; regular habits, outdoor exercise, gymnastics, hydrotherapy, massage and electricity.

Diet and medicinal agents will relieve many others. The first should always be tried first and persisted in. Increase in the daily meals, fresh vegetables, fresh fruits, and various grains ; coarse breads, graham or rye, and more water. The direction of the diet treatment is by no means easy—each case being one to itself. Food, the carbohydrates of which will be transformed into CO_2 and fatty acids cause the contents of the small intestine to remain more fluid ; and the presence of the different salts and gums, mucilages, pectines and other colloids contained in vegetable material are most curative. Blueberries, chocolate, tea, and coca should be avoided, owing to the constipating effect of the tannic acid.

Medicinal agents have often to be employed to promote peristalsis, and these agents may be divided into the organic compounds and the inorganic salts.

The chloride of sodium and sulphate of sodium groups costitute the inorganic salts ; to the former group belong all neutral salts which are easily absorbed in the small intestine from their watery solutions, they promoting absorption of foodstuffs and increasing peristalsis of the small intestine. They are entirely absorbed in the small intestine and excreted in the urine.

To the other group, sulphate of sodium salts, belong those which are difficult of absorption, such as sulphate and other salts of magnesium, the phosphates and tartrates. These are expelled with the feces and not with the urine—they prevent the absorption of water.

Increase of peristalsis is caused by the use of the organic salts, as rhubarb, senna, cascara sagrada, aloes, gutta, elaterium, colocynth, jalay and croton oil.

The author states that if dried ox bile be given in suitable form and sufficient quantity, fifteen to thirty grains three times a day, constipation may be relieved in very obstinate cases. He suggests giving it in salol coated pills to prevent absorption from the stomach in large quantities, before meals, after which the bowels may become entirely normal. Bile acts mainly on the contents of the small intestines, and the indications for its use are limited.

It must not be overlooked that treatment directed to the large intestine is often at fault when the condition would be relieved by a modification of the contents of the small intestine. Atropine, phystogmine are mentioned as indicated under certain conditions.

Extrauterine Pregnancy.

Duhrssen (American Journal of Obstetrics) describes 42 cases of tubal pregnancy and their operative treatment. In general, colpotomy is said to be the more preferable operation, but in a large number of cases this method is not suitable and abdominal section becomes necessary. If the tumor extends above the pelvic inlet abdominal section is advised; Duhrssen performed the abdominal operation in 20 out of 43 cases. Colpotomy is a less formidable operation and rarely accompanied by shock, which is of a special importance in cases of extrauterine pregnancy where patients are often of lowered vitality and weakened from loss of blood. Besides this, recovery is more rapid; Duhrssen discharged most of his cases between the eighth and eleventh days after the operation. The disadvantage of an abdominal scar, especially in fat women, is also well known. The technique does not differ much from previous descriptions. He recommends to bring adnexa into view by seizing them with forceps instead of making traction upon the ligatures. It is gratifying to note that vaginal fixation is less frequently advised. To avoid the complications of labor from adhesions between uterus and vagina, Duhrssen now advises a separate closing of the abdominal cavity and the vaginal incision. The extirpation of the pregnant tube is advised in all tubal pregnancy, if possible before the onset of alarming symptoms, also after death of the ovum. Dangerous hemorrhages may occur and have been observed after the death of the ovum; thus he condemns the treatment with injections of morphine. As to the etiology of tubal pregnancy, he differs from Webster and Martin, who believe that tubal pregnancy can only occur in a healthy tube, while Duhrssen considers gonorrheal disease to be the most frequent cause. Polypi of the tubes and puerperal atrophy are also mentioned as etiological factors.

The Value of Bacteriological Examination of Urine from an Etiological Standpoint.

F. Chvostek and Gust. Egger, according to the Boston Medical and Surgical Journal, have made an investigation, the purpose of which was to determine if in cases of so-called "heterologous bacteriuria" bacteria, which are normally present in various organs, obtain access to the circulation and are excreted by the kidneys. The writers' conclusions are based upon bacteriological examinations of the urine from a limited number of cases in which paroxysmal rises in temperature occurred not dependent upon bacterial infection (malaria and tuberculin infections.) In two cases of malaria, bacteria were found in the urine during a paroxysm. In three cases which were injected with tuberculin, bacteria appeared in the urine coincident with the rise in temperature, and disappeared from the urine after the temperature had reached normal. The authors conclude, that in consequence of the increased temperature, micro-organisms obtain access to the circulation from organs in which they are present normally, and that owing to the diminished resistance of the tissues caused by the action of the toxins, the high temperature and the diminished germicidal power of the tissues and fluids, living organisms are excreted by the kidneys. Only when specific organisms are found in the urine is it permissible to draw conclusions as to etiology (typhoid, actinomycosis, tuberculosis. It is more difficult to determine the etiological value of other organisms, namely, staphyloccocus.

Acute Nephritis of Gastro-Intestinal Origin.

Dr. Ebstein (Deut. med. Woch.) considers this as a frequent cause of acute nephritis, and relates a case in a woman aged 27, in whom there was no other cause for the disease either in past illnesses or in family pre-disposition. She had suffered from diarrhœa for nine months, and from pain in the gastric region and loss of appetite for six months. She suffered from tapeworm, but as to whether this was the cause of some of these symptoms there was doubt. The nephritis arose most acutely and proved fatal in a few days from eclampsia, coma, and collapse. During the illness small hæmorrhages occurred in the subcutaneous tissue. At the necropsy a tapeworm was found in the intestine. There was a follicular enteritis with ulcers and enlargement of the mesenteric glands. The spleen was quite normal. The kidneys presented the appearance of an acute nephritis. The other organs were healthy. It was only on the third day after admission that a small quantity of albumen appeared in the urine. Later abundant casts were found. The asthmatic attacks present were uræmic in character. As regards any other possible cause for the nephritis, except the gastro-enteritis, it must be mentioned that there was no ground whatever for thinking that the patient had influenza. There were no symptoms of an acute infective illness; there was no fever and no splenic enlargement. The author is of opinion that the suddenly oncoming nephritis was due to an intoxication from the alimentary canal. The severity of the nephritis arising in cholera is well known. In acute intestinal catarrh renal symptoms may appear, but in cases of chronic catarrh the condition of the urine has not been carefully observed. In this case the stools were very light, but contained no fat. The author records this case to draw attention to the possible occurrence of acute nephritis as a complication of chronic gastro-intestinal catarrh.

Some Observations on the Use of the Murphy Button.

Dr. E. E. Kelly (Pacific Medical Journal) concludes a paper on this subject as follows:

1. As a means of making a rapid and safe anastomosis between the hollow viscera of the abdomen, the button is a success.
2. Great care in the manufacture of the button is necessary, so that the edges approximate so as to cause necrosis of tissue equal to the circumference of the button; otherwise the button is likely to remain indefinitely in the abdominal cavity.
3. The two halves of the button must be firmly pressed together so that no capillary circulation is possible in the included tissue.
4. An absorbable suture is preferable to silk, so that the button may not be retained even though complete pressure necrosis does not occur.
5. The suture should be clipped very closely, so that the ends may not become lodged between the two halves of the button, and leave room beside them for capillary circulation, and prevent complete union of the serous surfaces around the button.
6. The spring in the female half of the button should be strong enough to keep up a degree of pressure sufficient to complete the necrosis of the included tissue after shrinkage has resulted from partial atrophy when the wall of the viscera is very thick.
7. In the operation of colecysto-enterostomy for gall stones, all calculi should be removed, so that in the event of retention of the button it may not become occluded, as in the case cited in this paper. This point is especially emphasized because Murphy, in speaking of this operation, states that it is not necessary to remove the stones, as they will readily pass after the release of the button.

Parotid Swelling in Uræmia.

Dr. Richardiére (Journ. de Med.) describes this complication, which has not attracted very much attention. Swelling of the parotids is well known in certain intoxications, such as mercury, arsenic, etc., and it is also observed in uræmia, which may be looked upon as a typical intoxication. The author relates a case of uræmic poisoning with dyspnœa and cephalgia, in the course of which there was pain at the angle of the jaw, accompanied by swelling of the parotid region. Both parotids were attacked at the same time. The swelling lasted four to five days and then completely disappeared. These parotid complications in uræmia may be due to two causes: greatly increased secretion or chemical modifications thereof. Increased secretion is a frequent occurrence of uræmia, and a large number of cases of ptyalism are recorded, and in a case observed by Barie 900 grammes of saliva were secreted in 24 hours. In the author's case there were no increased parotid secretions nor ptyalism, and in this instance, therefore, the parotid lesion would seem to be due to chemical alteration in the saliva. It is known also that in cases of deficient renal action the saliva contains a large amount of urea, and the parotid would therefore seem to have a certain vicarious eliminative action in some cases of renal disease.

Fibroid of Uterus.

Dr. George Ben. Johnston, of Richmond, Va., (Med. Register) says: "Women of the negro race are peculiarly liable to this form of disease. They suffer from fibroids of the uterus, but rarely from ovarian tumors. When a pelvic tumor appears in the abdomen of a negro woman, unless in the case of an octoroon, in ninety-nine cases out of a hundred the tumor is a solid one—a fibroid, and not an ovarian tumor. One-fourth of the women of this race who have reached the age of forty are the victims of fibroids of variable size. When the tumor attains a considerable size or grows in a favorable direction we have symptoms which are either due to pressure or symptoms relating to extravagant menstruation. If the tumor descends and lodges behind the uterus, pressing upon the rectum, we get a certain form of obstruction of the bowels; if it simply presses forward on the bladder we get vesical symptoms; if upon one or the other of the ureters we sometimes get hydronephrosis. If it attacks the fundus of the uterus and grows upward it does not give trouble until it attains considerable size, as seen in the case before us. These tumors are, as a rule, multiple, and are classified according to the position occupied in the structure of the uterus. If immediately beneath the peritoneum, upon the surface of the uterus, they are styled sub-serous; if in the muscular tissue, interstitial or intramural; if under the mucous membrane lining the uterus, sub-mucous; and these give different symptoms according to position. The symptoms complained of and for which this operation is performed are the pressure symptoms, and likewise the difficulty encountered in getting about, the patient being unable to walk with any degree of comfort."

The Conservative Agency of Shock.

Dr. H. G. Wetherill (Western Medical Review) says: The degree of surgical anesthesia, and the length of time it is maintained, must effect the result through the obliteration of the reflexes and the consequent paralysis of nature's conservative mechanism.

The conclusions he reaches are as follows:

1. Surgical shock, entirely unassociated with hemorrhage, is a condition rarely met with and one which may usually be successfully treated in persons who are otherwise in good health.

2. Hemorrhage, though small in amount, is a far more important factor in the production of surgical shock (as it is seen clinically) than we have been accustomed to think it.

3. This mixed shock (traumatic asthenia) should be designated by some distinctive title, or the term "shock" be construed to comprehend all the factors in its genesis.

4. While not proven, it seems probable that the effects of even a small continuous arterial hemorrhage is to produce, through its reflex action, lower blood pressure and, in general, a condition so like true shock as to be very difficult of differentiation, particularly if the hemorrhage is concealed, as in ruptured ectopic pregnancy.

5. Surgical shock, with or without hemorrhage, must be construed as primarily conservative in its tendencies. The incident prevention of rapid exhaustion, of acute suffering, or great blood loss when the blood vessels are opened, all tend to the ultimate saving of life.

6. Premature stimulation in the treatment of traumatic asthenia may defeat this conservative effort of nature. Bleeding should be stopped and proper provision made for the comfort and welfare of the patient before strong stimulation is resorted to, unless there is imminent danger of death.

7. Anesthetics must be sparingly and carefully given to patients suffering from surgical shock (traumatic asthenia) chiefly because they completely obliterate the reflexes. The saturation of the patient with an anesthetic may turn the scale against him and cost him his life even though the direct effect of the anesthetic be that of a stimulant. The same rule holds good in regard to the employment of alcoholic stimulants if too freely used.

8. We should co-operate with and supplement nature's conservative efforts. They are always exercised in behalf of the patient, never against him.

Improved Method for Detecting Casts in the Urine.

Haines and Skinner have described a combined subsidence and centrifuge method of detecting casts in the urine, which for ease and certainty leaves little to be desired. (Medical News.) It is especially useful in those doubtful cases in which, if casts are present at all, they can be detected only after repeated examinations.

The method practised is as follows: About 250 c.c. or more of urine, as freshly voided as possible, are poured into a cylindric glass percolator, such as is used by druggists in making tinctures and fluid extracts. The opening at the bottom of the percolator is closed with a perforated rubber or cork stopper through which passes a piece of glass tubing about 4 cm. long, and this is connected with a short piece of rubber tubing provided with a pinch-cock. The entire apparatus, before the urine is poured in, should be washed thoroughly clean and sterilized. After pouring in the urine a gram or two of chloral hydrate, dissolved in a few cubic centimeters of warm distilled water, are added to retard decomposition. The percolator is now covered with a glass plate and set aside in a cool place for eighteen or twenty-four hours. By opening the pinch-cock on the rubber tubing the sediment is drawn off and collected in one or two centrifuging tubes. In all cases the first cubic centimeter or two may be rejected, as it contains little or none of the sediment. The centrifuge-tube, which now contain 20 or 25 c.c. of urine, and practically all the sediment from the specimen, are placed in the centrifuge and submitted for a few minutes to about 3,000 revolutions per minute. By this treatment the sediment is condensed to a small deposit at the apex of one or two tubes, from which it is removed by a pipette and examined under the microscope. With suitable care essentially the entire sediment from 250 c.c., or even 500 c.c. of urine from the average patient with suspected cirrhosis of the kidney, may by this procedure be reduced to from one to four small drops, in which, it is evident, are practically all the casts originally contained in the large volume of urine employed.

Singular as it may seem, the chief defect for clinical purposes in this method is possibly its too great delicacy. By its use the writers have found that if sufficient time and care be given to the microscopic examination, casts may be found in the majority of samples of urine even from persons in perfect health.

Diphtheria.

The infection is spread through the bacilli in the sputa, false membrane, and secretions of the various diseased mucous membranes. The bacilli are probably present at times in the stools. Physicians and nurses are particularly exposed to the danger of infection when swabbing the throats of patients through the coughing of mucus and flakes of membrane into their faces.

Lesions of the mucous membranes where no susceptibility exists predispose to infection.

As the bacilli resist drying they may be scattered about in the form of dust. In layers the bacilli withstand drying for fourteen days, whilst in pieces of membrane or clothing, particularly when in dark, damp, and cool places, they may retain their virulence from four to seven months. A temperature of 136 deg. Fah. kills them in ten minutes.

Complete isolation of the patient is necessary as long as the slightest trace of the membrane is present, and for some time after it disappears.

Children should be kept from school at least four weeks after the disease has disappeared.

Where the disease prevails, Loeffler maintains the importance of keeping the mouths, noses, and throats of healthy children clean, using for this purpose an aromatic or other wash every three or four hours—sublimate, 1 part to 10,000 or 15,000 parts, chloroform, water, &c. Special precautions should be taken when using poisonous solutions in the treatment of children.

Adulterations.

The United States Department of Agriculture, sends out the following circular:

"Under authority of Congress the Department of Agriculture is investigating the extent and character of food and drug adulterations, and is desirous of securing all the information possible on the subject. Having been appointed special agent to inquire into and report upon this matter, the undersigned writes to request that you kindly furnish the department all the information you have in regard to adulterations, together with any suggestions as to the best remedy for the evil.

"1. Do you know of any new adulterant? If yes, state what, and how used.

"2. Would a national food and drug law assist in preventing adulteration?

"3. Would uniform food, drug and pharmaceutical laws tend to promote efficiency and purity?

"4. Please suggest what would best promote the interests of consumers and legitimate manufacturers and dealers.

"5. What is your opinion as to the extent of damage done legitimate business by imitation of brands, packages, etc.?

"6. To what extent do sophistication, misbranding and injurious adulterations exist?

"7. Have State laws aided in preventing adulteration? To what extent?

"8. Would a national law assist State officials in properly executing the local laws?

"9. Have adulteration, sophistication and misbranding increased or decreased?

"Prompt replies to the above, together with any other information or suggestions, will be highly appreciated."

Hemorrhage in Neurasthenia.

Ausset calls attention for the first time to hemorrhage from the mucous membranes without any appreciable lesion sometimes observed in neurasthenics. (Boston Medical and Surgical Journal).

He has collected six cases, two of which came under his own observation, in which there were attacks of hematemesis at various intervals of time, sometimes of a considerable amount, the patient vomiting nearly a quart of blood in an attack. The patients presented typical symptoms of neurasthenia, the attacks often came on as a result of some exhaustion or excitement. In a seventh case there were uterine hemorrhages. The hemorrhages had come on at varying intervals through a period of many years and the most careful examination failed to reveal any structural disease of the stomach or uterus. Similar hemorrhages have not infrequently been noted in hysteria. The vomited fluid in one case was analyzed and found to be blood mixed with saliva and gastric juice. The patients had all presented other symptoms of vaso-motor and gastric disturbance such as are common in neurasthenia, and the attacks always followed physical fatigue, too severe intellectual work, strong emotion, great joy or profound chagrin. They were preceded by an indefinable malaise, an inexplicable disquiet, and a feeling of impending trouble, but they came on rather suddenly, without special warning, and unattended with pain or any special sensation. After the attacks the patient felt weak and the ordinary neurasthenic symptoms were worse, but in a few days they returned to their usual condition. The trouble seems to occur only in confirmed neurasthenia, but it is, of itself, of no bad significance, and does not affect the prognosis. It is due, he believes, to a vaso-motor paralysis, but there is also some action of the glandular elements; there is a rupture of the blood vessels in the capillary net work beneath the glandular epithelium, and the blood mixes with the glandular secretion and is expelled with it through the excretory canal of the gland.

The Physician and the Surgeon.

The excellent article of Professor Webber in the March Journal is a very timely one, and it is a fact that the responsibilities devolving upon the general practitioner are greater now than ever before, and especially is true in Abdominal Surgery. I think Prof. Webber will agree with me when I say that in most Abdominal cases it is the tact and judgment of the family physician that has as much to do with the result as the surgeon, personally. I have often had occasion to notice this, as for instance when summoned by wire to operate. Your telegram only says "come at once;" occasionally it will add "prepared to operate," but only occasionally will it say what for, as most senders of telegrams will stick to the ten words allowed them. If connected by telephone you are somewhat better off as you can find out what the operation is and how to pack your satchel, but the idea is this, you must take the practitioners diagnosis, and to the credit of our profession be it added that it is usually a correct one, but nevertheless, the decision of when to operate is not so often correct. I know of no way by which the surgeon can help the condition of things, but it has often occurred to me that if some one practitioner in every community would take pains to post himself on the opinions of the best surgeons, and not only this but would ask some first class surgeon to let him see his work and to explain the diagnosis and the reasons for operating, it would be of great help to all concerned. The general practitioner of to-day must not only be in touch with all that is new in the surgical world in methods of diagnosis, but every practitioner should be prepared to undertake the care of any operative case after it has been performed, for many cases must be operated outside of the Hospital, and some of them even where the trained nurse cannot reach them, this being the case the relation between the practitioner and the surgeon must become more intimate. To illustrate. suppose a general practitioner has been called to a case which he thinks is appendicitis, what is his duty? My opinion is, (and I do not speak without knowledge, having had years of experience as a general practitioner before becoming especially interested in surgery,) that he should say to the patient or family: "This patient has a disease that puts his life in peril, and I do not wish to take the responsibility of deciding whether he should be operated upon or when, and I wish you would let me call a surgeon to decide this for me," if they refuse to let him do the best he can, but if they are sensible they will see the doctor simply is trying to do what is for the best interest of the patient, and will value his services all the more highly. To this end let us get the practitioner to come to the meetings of our Surgical clubs, at our State societies have some good surgeon talk on this subject and let the general practitioner and the surgeon get closer together, for neither can be independent of the other. B.

Glandular Swellings in Rickets.

Certain authors (Henoch, Comby, Baginsky, etc.) consider the glandular swellings observed in rickets as part of the clinical picture, others think they have no intimate connection with the principal disease, but are due to some other concomitant disease. (Froehlich Medico-Surg Bulletin). They first base their opinion of the frequeney with which the adenoid swellings are found in cases of rickets, and the opinion is favored theoretically by the hypothesis of the infectious origin of this disease. Clinically it must be demonstrated whether:

1. Many cases of rickets exist without glandular swellings; and whether

2. In cases of their coincidence we do not find some other morbid process which would suffice by itself to explain the hypertrophy of the gland.

At the Infants' clinic, in Breslau, the author examined eighty-five children on this point. He found absence of all hypertrophy in thirty-two cases, in each case the child had had no other grave disease. In all the other cases in which rickets was accompanied by glandular swellings, concomitant disease was always observed—tuberculosis, dermatosis, gastro-intestinal troubles, to which the gland-hypertrophies might have been due, the more probably as these affections are usually accompanied by glandular swellings when there was no rickets. This is well-known concerning tuberculosis and the dermatoses (furuncles, old eczema, scrofula, prurigo). Cases of gastro-intestinal troubles are principally cases of rickets. But rickets at the outset is hard to recognize. Yet, the author gathered fifteen cases of gastro-enteritis without a sign of rickets, but with marked adenopathy. No one could be positive, however, that they might not become rickety, being then so young. The author regards them as adenopathies without rickets, which view is supported by the microscopic findings in the glands, which show gastro-enteric infection of non-tuberculous character. Comby and Marfau hold to the gastro-intestinal origin of rickets, which does not decide that adenopathies are due to rickets, but merely that one and the same disease of general infectious character following gastro-enteritis has caused rickets and glandular swelling.

Besides, Stark, in a recent work, considers megalosplenia (less frequent than rickets) as due not to rickets, but to the gastrointestinal troubles of the rickety.

Ozone.

It may not be generally known that a very simple and effectual way of bringing ozone into the house consists in first suspending moist linen sheets in a keen, dry wind, and afterwards hanging them up in the house. The "Lancet" says that the air in the room will thus become considerably charged with ozone, and its presence will be easily detected by its peculiar smell, while a moistened starch-iodide paper will instantly turn blue. Why ozone is accumulated in wet cloths in this way is not quite understood, but it may be due to the rapid passage of the oxygen in air over a large wet surface. It is not improbable that this interesting phenomenon plays an important part in the real hygienic cleansing of our linen articles of clothing. In big laundries, when the not quite dry linen is brought in after having been exposed to a cold, dry air for a short time, the smell of ozone is almost more than agreeable.

A New Method for Circular Suture of the Intestine.

Prof. Halsted (Johns Hopkins Bulletin) claims the following advantages for this the latest addition to the methods of the circular suture of the intestine with the aid of a mechanical device:

1. The vermicular action of the bowel is arrested over the bag, and the stitches can, consequently, be placed at regular and proper intervals.

2. The distended bag unrolls and spreads out to a fine edge the everted raw edge of the intestine, and enables the operator to place the stitches with great precision at the desired distance from this edge.

3. If a distended intestine is to be sutured to collapsed intestine (in strangulated hernia, ileus, etc.), or intestine of larger to intestine of smaller lumen (jejunum to ileum, duodenum to œsophageal end of the stomach, etc,), the smaller may easily be expanded to fit the larger piece. This is perhaps the most important function of the cylinder.

4. The cylinder takes the place of at least two assistants.

5. It prevents escape of intestinal contents and hence dispenses with the injurious clamps or the fingers of assistants.

6. The entire operation, exclusive of suture of the abdominal wall, can be performed on dogs in five or six minutes, and probably in less time.

7. Very little handling of the intestine itself by the operator is necessary. The tube from bag to syringe is used as a handle to rotate and elevate the parts to be united.

8. The operation could readily be performed without a single assistant.

Rontgen Rays in Diagnosticating Arteriosclerosis.

Carl Beck (New York Medical Journal) says the proofs of the immense usefulness of Rontgen rays in surgery are overwhelming. Their value in internal medicine has not as yet been made so apparent; but with better interpretation of the shadows, the significance of the rays in the obscurer ailments will be convincing to the mind of the most sceptical. A striking example of this may be found in the diagnosis of arteriosclerosis. According to the text-books on internal medicine, the thickening of the tunica intima cannot be recognized if it is confined to a small area or to single foci. It hardly needs to be emphasized how important it is to know whether, in a given case of sclerosis of the radical artery, there exist foci in other vessels besides. Nor can it be indifferent what the number of these obstructive foci is, and whether an aorta or a temporalis is concerned. If such foci are recognized at an early stage, proper prophylaxis can accompish a great deal in preventing secondary disturbances. The prognostic significance of an exact knowledge of the condition of the arteries is also evident. The Rontgen rays give us a most reliable method of ascertaining the condition of the vessels, and this in nearly every part of the body.

The Relations Between the Nose and the Genitals.

Prof. John N. Mackenzie (John Hopkins Hospital Bulletin) states that the nose is a not insignificant index of the state of sexual affairs in the human family.

1. In a fair proportion of women suffering from nasal affections, the disease is greatly aggravated during the menstrual epoch or when under the influence of sexual excitement.

2. Cases are also met with in which congestion or inflammatory conditions of the nasal passages make their appearance only at the menstrual period, or at least, are only sufficiently annoying at that time to call for medical attention.

3. Occasionally the discharge from a nasal catarrh will become offensive at the menstrual epoch, losing its disagreeable odor during the decline of ovarian disturbance. In many cases of ozena the fetor is much more pronounced at times corresponding to those of the menstrual flow.

4. Excessive indulgence in venery sometime seems to have a tendency to initiate inflammation of the nasal mucous membrane, or to aggravate existing disease of that structure. There are those, for example, who suffer from coryza after a night's indulgence in venereal excesses, and the common catarrhal affections of the nose are undoubtedly exaggerated by repeated and unnatural coition.

5. The same is true in regard to the habit of masturbation. The victims of this vice in its later stages are constantly subject to nose-bleed. watery or mucous discharge from the nostrils and perversion of the olfactory sense.

6. The coexistence of uterine or ovarian disease exerts an important influence on the clinical history of nasal disease. This fact has been shown in practice in cases in which the nasal affection has resisted stubbornly all treatment and in which it has only been relieved upon the recognition and appropriate treatment of the disease of the generative apparatus.

Rules for Prognosticating the Sex of an Expected Child.

Dr. D. E. Keefe, in New England Medical Monthly, gives the following:

1. When both father and mother are matured; that is over twenty years; if the vigor of the husband is relatively greater than the wife's, expect a female child.

2. When with all other conditions the same as in 1, only that the mother is relatively more vigorous than the father, expect a boy.

3. When the parents are relatively of equal vigor, expect an equal division of the children, as to sex, for nature seeks the conservation of the sexes. If, however, with the vigor the same, the complexion of the mother is dark and the father is light, you may rather expect a boy. If on the other hand the father is dark and the mother of light complexion, rather lean towards a girl.

4. When one of the parents, though apparently as vigorous as the other, is comparatively either immature or senile, consider the one nearest the age of stalwart maturity as the more vigorous. For example: A wife sixteen to eighteen, or forty-two or over, with a husband twenty-five to forty, prognosticate a daughter. On the other hand. with a husband sixteen to twenty, or forty-eight or over, and a wife twenty to thirty-five, expect a male child.

Very many exception to these rules will occur; so many, indeed, as sometimes to make them appear of doubtful application. Nevertheless, a patient and extended trial will prove their utility.

Post-Diphtheritic Paralysis and Antitoxin.

Joseph McFarland (Med. Record,) is convinced that there must be a large number of busy men in the profession who have not had time to think seriously upon the relation of the antitoxin to the palsies, and who need, in consequence, to have their thoughts properly directed.

Of the various sequelæ of diphtheria, the occurrence of paralysis is most important. It is likely to come on in any case, and can be expected with equal frequency regardless of the therapeutic measures employed. It may not be an exaggeration of the truth to say that nearly one-fourth of all diphtheria patients who recover suffer from a more or less severe palsy in the course of the convalescence. More cases follow the use of antitoxin than any other mode of treatment, unless the remedy be prescribed early enough and in sufficient amount. This does not argue against the use of antitoxin, but for it.

The Ocean Climate.

The Medical Record in discussing this subject says: True ocean air, sufficiently distant from the land to be free from contamination, possesses at least one quality in common with the air of high altitudes—namely, great freedom from impurities and microbes. Within the tropics, though warm, the ocean air is never sultry, as it is at the same temperature on land, nor is the temperature so high as on land. In the tropics the range of the thermometer at sea is from 72 deg. to 84 deg. F., and rarely as high as 86 deg. F. at midday. The mean relative humidity is about 73.5 per cent. The humidity is usually a little greater at night than during the day, but commonly is less at all times than that of the air of sea coast places. The quantity of sea salt in the air is infinitesimal, excepting in the trade winds or in gales. An ocean journey should give complete change of scene, relief from all sources of excitement and worry, healthy sleep, and a good appetite. To obtain the good effects of an ocean voyage patients should be "fair sailors," and should not be too ill or too weak; the accommodation on the ship and dietetic arrangements should be satisfactory; and there should be facilities for medical advice and, in some cases, proper medical supervision.

Extragenital Syphilis.

Dr. Charles F. Bevan (Med. Record), in a review of seventeen cases of extragenital syphilis, gives the following summary of the location of the primary infection: Anus, 1; cheek, 1; fingers, 2; lip, upper, 5; lip, lower, 2; hard palate, 1; nipple 2; tongue, 2; thigh, 1, total, 17. The consideration of these and similar cases occurring in the practice of almost every physician raises at once a most important question, viz.: Can anything be done, continues Dr. Bevan which may prevent, or, failing that, minimize the spread of this and similar affections? The first duty of the physician should be to disseminate knowledge—to his patient as regards any special lesion he may have; to the public at large as regards the nature, manner, and mode of infection of this as well as of all other infectious disorders. There is a rather widely spread belief among the laity that only the initial lesion of syphilis is capable of producing that disease; that when once this sore has disappeared, not only are the victims not liable to distribute their disease, but that they are absolutely well. Many medical men have rejected their first carefully made diagnosis, only on account of the fact that the secondary phenomena had not developed within the time limit expected by them. Such patients, lulled to fancied security, become dangerous in the extreme to the innocent as well as to themselves. It is upon this class that the essential facts pertaining to the contagious lesions of syphilis should be firmly impressed. No halfway views should be tolerated. The truth, even with its horrors as we physicians see them, should be made a subject of general information. The community at large has always shown, as is but natural, the greatest desire to escape disease, and by wise legislation to avoid or reduce to a minimum the chances for its contraction whenever the dangers and facts pertaining to it have been carefully brought to its notice. The spreading of knowledge concerning syphilis and venereal disorders has been opposed by most of the rigid moralists and clerical classes, rather from ignorance of the essential facts, than from any hope of ever freeing humanity by any system of morals. They do not believe in giving such protection and countenance to immorality as belongs to a well-regulated licensing system, because they labor under the belief that these disorders are invariably contracted in a venereal manner. While we cannot but admit the greater frequency of their venereal dissemination, we must not fail to impress upon all that there are other modes; that the innocent are often accidentally infected and become agents for the scattering of this social pest. These cases, just reported, are indeed valueless, if they fail to impress one with this deduction.

No matter how rigid our moral ideas may be upon the subject of licensing prostitution, we must not allow prejudice to obscure facts. We must recognize the sexual passion as one of the strongest impulses of our nature; that wherever men and women cohabit promiscuously there will be found the whole class of venereal maladies, and that some of the innocent must fall victims to the prevailing disorders. To protect and save the few is an imperative duty. The regulation of prostitution by law is neither new nor yet an untried experiment. In 1863 the experiment was made at Nashville, Tenn. Medical Director Gihon, of the United States navy, reports that the amount of venereal disease was markedly lessened; that the women, who at first were rebellious, not only became quite reconciled to the system, but often voluntarially came to the hospital for examination for suspected disease. In 1872 the legislature of Missouri passed a law requiring registration of prostitutes and medical examinations at regular intervals. When found diseased they were sent to and retained in a hospital until they were cured. Under this system the number of prostitutes as well as the amount of venereal disease decreased. In the Medical News of June 12, 1897, Assistant Surgeon Crandall called attention to the impairment of the United States naval service through the prevalence of venereal disorders. In the London Lancet of January 30, 1897, the condition of the army in India since the repeal of the "cantonments acts," relating to the medical inspection of prostitutes, is vividly shown. More than one-third of the entire army is reported invalided from venereal disorders, and fully one-half of the army is unfit for marching service.

So long as human nature remains unchanged, so long will venereal maladies exist. The sexual appetite must and will be gratified; it is devoid of a conscience. Wise legislation and the regulation of prostitution by license have afforded protection to many, have improved the morals of the community, and have afforded the means through which many prostitutes have been redeemed and have been restored to lives of usefulness.

Foreign Bodies in the Ear.

Burnett (Philadelphia Polyclinic) advances the following practical deductions:

1. Always examine an ear said to contain a foreign body, and find out whether such is the case before endeavoring to remove the foreign substance.
2. Whatever a child puts into its ear, or allows to be placed there, is placed there easily and painlessly, and can be as easily and painlessly removed by any physician who can properly syringe the ear.
3. A foreign substance was never known to be impacted in a child's ear by the child. Neither has a foreign body ever been impacted in the ear by syringing.
4. When impaction has occurred, or any injury to the ear, after the insertion of an inanimate substance by the child into its ear, such injuries have been the result of instrumental endeavors at extraction by means of probes, hooks, forceps, etc. The latter are never needed by anyone at first, as the syringe will suffice in all cases where no violence has been exerted upon the ear. Instruments of any other kind should never be employed at any time by any hand but the most skilled.
5. If animate bodies, insects, etc., get into the ear, a few drops of oil will smother them, and they can then be syringed from the ear. Maggots can be destroyed by a few drops of ether or chloroform put into the ear. They can then be lifted out by means of forceps. But this latter act can be performed only by an expert. However, the intense pain caused by the presence of maggots in the ear can be allayed by the use of chloroform in the ear, as stated above.

Social and Professional Visits.

The Maryland Medical Journal, in its editorial columns, comments intelligently on this subject:

The young man entering practice is often in a predicament and has hard work to make fine distinctions. One of his difficulties is in knowing how and when to make friends of his patients and patients of his friends. An older physician once said that for every friend made by a young man two patients were lost.

There is no doubt that the familiarity which springs from a close acquaintanceship between physician and friend soon begets a certain amount of contempt, and in too many cases the physician does better to hold himself aloof from too close communion with possible patients. The dangers of making friends of patients is also emphasized when the visit which is on the dangerous borderland between social and professional is viewed from different sides by patient and physician.

A physician goes to see a sick one, be it man, woman or child, and he is asked to remain, perhaps to spend the evening or to take a meal. That is the fatal step. As soon as he begins to drop in in a familiar way to ask a few questions and make a few suggestions, and then remains for a social talk, just so soon is his position as family physician in jeopardy. Of course, there are exceptions to this statement, when the physician has reached the age of extreme maturity, and then comes the difficulty of turning him off when the family likes him as a friend, but feels that as a physician a better man might be found. When the time for rendering bills comes around then the position of both parties is usually clearly defined.

A young physician in New York State has just brought suit against a fair patient for a bill for services, which she maintains she does not owe, as so many of the visits were of a social nature. By bringing suit the physician made clear his position and found an enemy in his fair patient, and being in a small place, he probably hurt himself more than the amount of the bill, while the patient was taught the lesson that good services may be rendered, even though harmless talk and persiflage be mingled with the good advice. Still, such combinations are rather dangerous, and physicians especially are much more appreciated if they have little to say and refuse to converse on medical topics before a general audience or take up social chit-chat on an equality with the patient during a professional visit.

More misunderstandings arise from this lack of business methods than from many other causes. As long as there is illness in a house social visits should cease, and when professional advice is asked during a social visit it should either be given cheerfully and openly, so that the patient understands it is free, or else it should be made clear that it is a professional service.

It takes more than mere medical knowledge to make a successful physician, as the successful man with tact and a knowledge of human nature so well knows.

Typhoid Fever Treated by Oil Enemata.

Dr. O. Paget, an Australian practitioner, has found, in the course of a severe epidemic of typhoid fever under his observation, that enemata of pure olive oil exert a very favorable action on the lesions of the intestine and on the general condition of the patient. (New York Lancet.) Whether there is constipation or diarrhea, the oil favors evacuation of the intestine and prevents the absorption of the toxins formed in the digestive tract, as shown by the immediate improvement noticed in the typhoid symptoms. The fever diminishes, the ataxia and insomnia disappear, the patient experiences a feeling of comparative well-being, and the disease runs a milder course. This result was secured, in Dr. Paget's experience, by injections into the rectum, twice in the twenty-four hours, of a quarter to half a liter of olive oil, for five days in succession at least. Later on the enemata are only given once a day, then once in forty-eight hours; stopping them altogether when there appears to be lasting improvement of all the morbid phenomena. In certain cases, owing to a paralytic state of the intestine, the oil enemata fail to produce any alvine evacuation. It is then necessary to administer the oil by the mouth, all in one dose. If this first dose produces no effect, a second one is given after twelve hours have elapsed. When a movement of the bowel has been obtained in this way, the oil treatment is continued in the form of enemata, which are then capable of producing their usual effect. Whilst trying the effect of oil on his enteric fever patients, Dr. Paget discontinued all other methods of treatment, more particularly the use of intestinal antiseptics, of baths, or of cold packing; he simply added sponging of the body with tepid water and vinegar. Dr. Paget did not lose a single case out of a hundred which he had under his care. During the same epidemic, and in the same town, the death-rate among the typhoid fever patients treated in hospital was 20 per cent.

Medical Society Publications.

Dr. James Tyson discussed this subject in his address as retiring President of the Philadelphia County Medical Society (Phil. Polyclinic). He said:

To me the ideal plan of publication for a society is to make up its own volume at the end of the year, leaving the authors to seek such media for immediate publication as they may themselves prefer. I do not, however, include in such media the lay press. The standard by which the acts of a physician are judged is a peculiarly high one, so high that the average layman cannot understand it. To him medical etiquette is an absurdity, and our objection to the ordinary modes of advertising he regards as unpractical. Yet this standard is the natural outgrowth of the physician's occupation. Succor to the suffering, mercy to the unfortunate, priest-like fidelity to confidences reposed, are practices which tend to shape out a lofty ideal, and to such an ideal commercial methods are foreign. The adage, "business is business," which has always grated harshly on my ears in any application, is especially foreign to our ideal. The publication of medical papers in the lay journals where they are likely to attract the attention of the lay readers to the physician-author constitutes, in my judgment, commercial method. On the other hand, let us not pretend that we are better than we are. Do not let us claim that we publish our papers in the professional journals on pure philanthropic grounds, or only because we have a valuable piece of information that we desire to impart to our professional friends. We publish also to enhance our own reputation, a perfectly justifiable procedure when accomplished through the medium of professional journals.

Enteric Fever.

Dr. T. Orme Dudfield, in a recent report to the vestry of Kensington, writes that: (Treatment.) "Probably, if the matter were carefully looked into, it would appear that no small part of the autumnal increase in the prevalence of this disease in London might be accounted for by visitations made to 'health resorts' and other places out of town. It is to be borne in mind, moreover, that the so-called oyster season commences at about the period usually devoted to the annual outing, and it is within the range of probability that a certain proportion of the enteric fever cases result from the eating of the 'delicious bivalve' (not to mention other varieties of shell fish), which varies as greatly in quality as it does in cost; the places of storage, moreover, being but too often open to suspicion of contamination by sewage." The reporter is able to confirm Dr. Dudfield's opinion. During the last few months he has investigated a series of cases which cropped up subsequent to a Sunday-school excursion to a certain seaside resort, where shell fish were picked up and eaten by a number of the children. Some were seized with diarrhœa and sickness soon after, while others developed typhoid at a later date.

The Excessive Use of Salt.

The Journal of Hygine speaks thus of what it terms "the salt habit":

"The use of salt as a condiment is so general and so universally believed in as necessary, that we rarely hear a word against its excessive use, but there are a multitude of persons who eat far too much salt; eat it on everything—on meat, fish, potatoes, melons, in butter, on tomatoes, turnips and squashes, in bread, and on a host of foods too numerous to mention. To so great an extent is it used that no food is relished which has not a salty taste, and this hides more or less the real taste, which is often very delicate. Now, the amount of salt required in the system is comparatively small, and if the diet has been rightly compounded, very little is necessary. Some go so far as to discard its use altogether, but whether this is wise or not we will not here consider. What are some of the evils of the excessive use of salt? They are to paralyze the nerves of taste, or to pervert them so they cannot enjoy anything which has not a salty flavor, and in addition there is a direct tax on both the skin and the kidneys in removing it from the blood. Whether the skin is harmed by this tax we do not know. Possibly it is not greatly injured, yet we know that few people possess a healthy skin; but it is now pretty well settled that an excessive use of salt does overtax the kidneys in its removal, and that the great number of cases of derangement and disease of these organs is due to this use. It takes only a little time to learn to enjoy many kinds of food without salt, and we advise our readers and others to look into this matter and to try to diminish the use of this condiment as far as possible. We believe they will be better for it."

Tonsillar Cough.

Cough in general is a reflex provoked by some sort of an irritation at the site of the larynx. The inition focus of the irritation may be at quite a distant point and may arise in the tonsils.

The complex innervation of the latter amply explains this. The glossopharyngeal, lingual, spinal, and pneumogastric filaments all enter into a plexus on the surface of the tonsil. The first-named nerve has the most abundant distribution, especially on the surface, while the twigs of the others are rather distributed to the interior. Also the tonsil is encircled by muscles which are in very close relation with the muscular apparatus of the larynx.

Tonsillar cough may be evoked by acute and chronic inflammations of the gland by calculi, foreign bodies, mycosis, &c., and even by mere contact with the stylet. Adherences to the faucial pillars may also produce it. Sometimes the act of swallowing will remove the impulse to cough.

The tonsillar cough is violent, irregular, spasmodic, even suffocating. Various other reflexes, including lachrymation, may accompany it. There is no expectoration.

Cocaine will stop it temporarily if applied vigorously to the tonsillar surface.

Treatment is, of course, the restoration of tonsillar site to a normal condition, and removal of the gland if of any size. The usual cough remedies are naturally without effect.

Purification of Drinking Water.

A continental journal contains an account of a process for purifying drinking water, described by Prof. Almen, of Upsala. To one litre of water, three cubic centimetres of liquor ferri perchloridi are added, and, after some hours, fifty cubic centimetres of lime water, which causes a flocculent precipitate of basic salts of iron, removing all mechanical impurities, and at the same time from 40 to 80 per cent. of the organic matters. When the water is very hard the lime may be diminished, or even omitted altogether. Prof. Almen has employed for filtering a portable filter, composed of three linen bags, filled with sand of graduated fineness, through which the water is conducted by means of tubes. This process renders the water clear, and free from taste, but it wants the sparkling and refreshing properties which carbonic acid imparts to it.

Earache.

Hinkel (Buffalo Med. Jour.) summarizes a good article in the following valuable points:

1. Earache, however slight, may signify disease that, neglected, may terminate in loss of hearing, and even of life itself.

2. Recurring earache in children is almost always associated with lymphoid hypertrophy of the pharynx, and permanent impairment of the function of the ear is prevented only by early surgical treatment of the adenoids.

3. Acute inflammation of the middle ear may be frequently aborted if proper treatment—mostly of a general sedative character—be administered early and with precision.

4. If relief be not obtained by the second day, an expert examination of the ear should be made, and proper surgical treatment applied to relieve intratympanic pressure and possible involvement of the mastoid cells or intracranial structures. Failure at this stage to obtain as exact knowledge as possible of the condition of the middle ear is criminal neglect.

Bad Ideas.

Geo. W. Griffith, M. D., (Cleveland Med. Gaz.) presents the following practical suggestions:

It is a bad idea to have office, residence and stable in different portions of the city.

It is a bad idea to be too prompt with the hypodermic syringe. It is like a gun, dangerous without lock, stock or barrel.

It is a bad idea to have a small slate in your office. It indicates small business.

It is a bad idea to neglect your office hours. Take care of your office and your office will take care of you.

It is a bad idea to turn professional visits into social business.

It is a bad idea for the young doctor to live in single blessedness too long.

It is a bad idea not to send out your bills for professional services promptly at the end of each quarter, making no exception.

It is a bad idea to turn aside from the United States Dispensatory to follow false gods.

It is a bad idea to encourage your patients to put off sending for you until seasonable hours.

It is a bad idea to make your business secondary to anything else.

It is a bad idea not to stand by your professional respectable brother. Curses, like boomerangs, come home to base.

It is a bad idea for the professional man to dress and look like a jockey.

It is a bad idea not to have your sign give your full name; some other "McGregors" may come in and get the benefit of your reputation.

It is a bad idea not to belong to a first-class medical society, and attend regularly all its meetings.

It is a bad idea not to have "Office Practice, Cash," prominently displayed in your office. It prevents the transient "Thank you."

It is a bad idea not to have a good sign that every one can see.

It is a bad idea to have office hours on front of office where the public can see them. You may be (very often) in your office outside of your office hours.

Rules for Orthopedic Practice.

1. Discard the idea of rheumatism of a single joint in children (especially in the hip) unless it is positively proved by acute symptoms. Tuberculous disease is much more probable, and treatment for the graver condition will frequently abort threatened joint-destruction.

2. Any child may have local tuberculosis of a joint, no matter what its ancestry; heredity signifies only degree of resistance.

3. Do not attribute to "habit," a persistent limp. An inflammatory or paralytic cause is more probable.

4. All persistently fretful infants (especially those that cry when moved) should be carefully examined for evidences of spinal spondylitis. Older children, with stubborn irritation of the lung, stomach or intestine, should always be critically examined. Early diagnosis and treatment will accomplish excellent results.

5. In lateral curvature of the spine the indiscriminate and unskilful use of mechanical appliances does harm, while to neglect these means of fixation in spinal caries is ruinous.

6. To "let alone" a curable congenital bone-deformity after the first week of life is to lose the golden opportunity for cure.

Treatment of Gonorrhœa and Cystitis.

Janet (Treatment) states that cystitis may be due to (1) simple irritation from matter in the posterior urethra; (2) extension of inflammation; (3) infection of secondary microbes. Treatment of the first condition is the same as for gonorrhœa, taking care only to allow small quantities of permanganate to enter the bladder. Infective cystitis, Janet says, permanganate has little effect on, and for this he prefers itrol (silver citrate), one in four thousand, or silver nitrate. one in one thousand.

The Anatomy and Function of the Pelvic Floor in Women, and the Operation for Repair of Injuries Due to Parturition.

This was the subject of a paper presented to a recent meeting of the Suffolk District Medical Society by D. Goffe, editor of the Medical News. He stated his belief that the function of the perineum is entirely passive, and that it serves three purposes, namely, (1) it fills in a certain amount of anatomical space between the outlets of the two canals, the vagina and the rectum; (2) it gives attachment to the movable end of the levator ani muscle; and (3) it gets out of the way, or, more correctly, is drawn out of the way of the advancing head in parturition and of the fecal mass in defecation. All active movements of the pelvic floor is accompanied by the levator muscle, under which name the author includes all the muscular structures of the floor of the pelvis. This levator muscle was described as cone-shaped with a bony origin and a tendinous attachment, the bony origin being the entire circumference of the pelvis and its attachment the tendinous centre known as the perineal raphe. Lacerations of the pelvic floor are serious in proportion to the degree of impairment to the structure and functions of the levator ani muscle which they produce, and any operation for the repair of such lacerations must restore to this muscle its distal attachment. The following method was advocated: Beginning with the highest carunculæ on either side and reaching the highest point of the rectocele, a triangular flap is removed; then, with the finger of the left hand in the rectum, the needle is inserted about one-fourth of an inch from the angle of the denudation, passes through the mucous membrane, sweeps out toward the side of the pelvis, and gradually curves toward the median line until it emerges near it and about an inch down the rectocele. It is then withdrawn and again inserted an eighth of an inch on the opposite side of the median line and swept back through the tissues in a reverse direction until it emerges upon the mucous membrane at a point equally distant from the angle of denudation to correspond with the point of insertion. A second stitch is inserted a quarter of an inch farther down the edge of the mucous membrane and corresponding to the first suture. The two or three succeeding sutures similarly passed bring together in front of the rectocele the separated edges of the muscles and fascia, and the last is passed down around the entire circumference of the denuded surface. The suture material employed is silver wire. One of the advantages of the operation is that it is followed by but little pain, and the patients are confined to bed but a few days.

Surgery of the Stomach.

Several contributions to the surgery of the stomach have been made during the last few weeks. (Treatment.) Mr. M'Ardle, Surgeon to St. Vincent's Hospital, Dublin, calls attention to the well-planned and skilfully conducted manœuvres by which physical proof of gastric derangement can be readily obtained. The most generally useful apparatus for the purpose is the tube and funnel, as used by Kussmaul. By passing this tube it is easy to ascertain the character of the gaseous and liquid contents of the stomach, to ascertain the capacity of the organ, and by gently dilating it with boric acid solution to percuss out its position and to localize the pylorus.

While the stomach is distended with fluid, an intermittent rush through the pyloric orifice can be heard if the phonendoscope be applied to the abdominal wall; this would indicate that the valve was acting properly, while a continuous sound of passing fluid would be evidence of induration of the pyloric end of stomach without stenosis. Again, the absence of all sound and the permanent distention shown by persistent dulness would indicate pyloric obstruction usually organic in character.

The gastroscope is an apparatus for the electric illumination of the stomach. It enables an idea to be obtained of the extent and position of the organ, and any thickening of importance on its anterior aspect may be detected.

A rubber balloon, capable of éxerting a pressure of four pounds to the square inch, is sometimes an appliance of great value in the diagnosis of pyloric trouble. The balloon is filled with hydrogen, and after the stomach has been washed out through Kussmaul's tube, the gas in the balloon is allowed to pass slowly through the tube into the stomach. When visible distension of the epigastrium occurs, the phonendoscope is placed over the normal position of the pylorus. When the valve is acting, an intermittent whistling sound is heard, and variations of epigastric tension are noted. A continuous sound of the same character indicates that the closure of the pylorus is retarded through induration or by bands of adhesion, while the absence of any whistling and continued epigastric distension show that closure of the pylorus is present. The tympanitic note obtained when the stomach is distended with this light gas is very marked, and enables one to outline the organ with great accuracy.

When hydrogen is used in examining for perforation of the stomach or intestines, an aspirating needle is passed through the linea alba. If gas escapes a light is applied, and should there be a perforation a blue flame appears. In the absence of this it may be taken that there is no abnormal opening in the bowel-wall.

Pregnancy Complicated by Kidney Affections.

E. H. Douty (Am. Jour. of Gyn. and Obst.) concludes that albuminuria appearing primarily in pregnancy may arise from:

1. Pressure on the renal veins or other vessels.
2. Pressure on the ureters.
3. Increased work of the kidney due to the excretion of the waste products of the fetus and enlarged uterus.
4. The generally increased arterial tension which is usual in pregnancy.
5. A reflex influence starting from the pregnant uterus as a source of irritation, and disturbing the circulation or the secretions of the kidney as that of the salivary and of the thyroid glands are in some cases disturbed.
6. The pressure of a specific germ.

In cases where the kidney-trouble is of long standing and the albuminuria amounts to one-third, together with some edema, pregnancy should be at once terminated for the woman's sake, especially since the chance of a living child is very small, as premature labor almost certainly occurs. When, however, there is merely a temporary disturbance of the kidneys and their vascular system, the chances for mother and child are considered better and pregnancy may be allowed to proceed.

The Mortality of Tetanus with and Without Antitoxin.

Owens and Porter (Journal of the American Medical Association) report three cases of tetanus, one treated symptomatically and two with antitoxin. All proved fatal. A study of the published cases shows two facts,—viz., that mortality rates have been but little influenced by the treatment with antitoxin, and that the relation of the period of incubation to the mortality is practically the same whether the antitoxic serum is or is not employed. The writers have analyzed twenty-six cases in which the serum had been used, and found twelve recoveries and fourteen deaths, giving a mortality of 53.8 per cent. Of those patients who recovered, the shortest period of incubation was six days; of those who died, the longest period was twelve days. They are, therefore, of the opinion that those cases in which symptoms appear before the sixth day will die in spite of any antitoxin treatment, and those in which the development of symptoms is delayed beyond the second week will invariably recover. The Medical Bureau of the Columbian Exposition treated 202 cases, in which nail-punctures had been received during the erection of buildings, in most cases the puncture being made by a rusty nail. Their treatment was as follows: (1) Thorough cleansing of the part with a solution of bichloride of mercury, 1 to 1000; (2) trimming the edges of the wound; (3) swabbing out of the wound with a probe lightly covered with cotton, and dipped in a 95-per-cent. solution of carbolic acid; (4) drainage; (5) antiseptic dressing; (6) rest. Tetanus did not develop in a single case. This shows the value of the preventive treatment, which ought to be followed rather than to place dependence upon any possible good effect of serum administered after tetanus has developed.

Health "Don'ts."

The "Phrenological Journal" says:

Don't neglect your house-drains, nor the drainage about your house. The first condition of family health is a dry and sweet atmosphere. With dry walls, a dry cellar, and drains that carry off refuse without letting in foul gasses, half the battle for good health is won.

Don't let your wells or springs be infected by drainage or from other causes. Pure drinking water is indispensable for health at home or anywhere.

Don't keep the sun out of your living and sleeping rooms. Sunlight is absolutely necessary for a right condition of the atmosphere that we breathe and for our bodily well-being.

Don't sleep in the same flannels that you wear during the day.

Don't wear thin socks or light-soled shoes in cold or wet weather.

Don't catch cold. Catching cold is much more preventable than is generally supposed. A person in good physical condition is not liable to colds, and will not fall a victim to them unless he is grossly careless. Keep the feet warm and dry, the head cool, the bowels and chest well protected; avoid exposure with an empty stomach; take care not to cool off too rapidly when heated; keep out of draughts;

wear flannels; and with the exercise of a little common sense in various emergencies, colds will be rare. If colds were a penal offence, we should soon find a way to prevent them.

Earth Works as Propagators of Disease.

Dr. Halsted Boylan, of Paris, has recently presented some ideas concerning the cause of yellow fever, charbon, and tetanus, and he claims that the worms coming to the surface of the earth from the bodies of those buried who have died of these diseases frequently act as propagators of the germ or poison. The earth itself becomes contaminated, and the poison is inhaled by man, eaten by cattles or infects the water, which afterwards becomes a fruitful source of disease propagation. Verneuil has called attention to the fact that tetanus is most frequent among those coming in any way into contact with horses, it only being necessary for men under these conditions to have upon their hands a small cut, scratch, or wound inadvertently brought into contact either with the manure containing the bacillus or with the ground infected thereby. The first experiment of this kind was made by Nicolaier, who demonstrated that the subcutaneous inoculation of earth taken in the fields, gardens, and streets determined in mice, rabbits, and guinea-pigs, at times septicæmia by septic vibrios, and at others tetanus.

The contamination from below the surface is twofold; miasma and emanations from the soil in paludial districts or when particles of organic substances rise to the surface in different states of alteration, coming from the tissues of decomposing animal matter and by the ordinary rain worm. W. Theobald, in a recent lecture, claimed that in 1850 yellow fever appeared in the Valley of the Amazon where it had been previously unknown, and a careful investigation traced its origin in that locality to the burial of a man from Jamaica who had died from the fever and had been landed at Para for burial. The soil on the surface was found to be charged with the microbes of yellow fever. The question now arises whether typhoid and malarial fevers may not be also disseminated in this manner. The one has its bacillus of Eberth and the other its hematozoon of Laveran. Both are very resistant, and the worms may swallow particles of them and deposit them on the surface with the same facility as the bacilli of yellow fever, although this method of transmission of typhoid and malarial fevers is not generally admitted. Pasteur has found the germs of charbon in the superficial layers of the earth over ditches where sheep that had died of the disease several years previous had been buried. The earth worms are the first carriers. In the depths of the soil they swallow minute particles of earth containing the spores formed around the bodies of men and animals, for the purpose of extracting from them what nutritive substances they may contain and rendering them on the surface in the form of little twisted cylinders of a dark brown colour. The practice of cremation is strongly urged to destroy these dangerous elements of both the bodies of those having died of the contagious and infectious diseases and the soil surrounding their place of burial.

Prosperity and Cancer.

For long cancer has been looked upon as a poor man's disease. It has, in fact, come to be spoken of as "morbus miseriæ," and a recent author has even said, "My experience is that uterine cancer occurs only among the working classes." Roger Williams, however, writing in the "Edinburgh Medical Journal," directly traverses this opinion, and some of the statements which he makes are sufficiently striking. He points to the enormous growth of material wealth which has taken place during the years that have seen this increase of the death-rate from cancer, and asserts that "the Registrar-General's reports show that the cancer mortality is *lowest* where the conditions of life are hardest, the surroundings the most squalid, the density of the population greatest, the tubercle mortality highest, the general mortality highest, and where sanitation is least perfect—in short, among the industrial classes in our great towns; whereas amongst the wealthy and well-to-do—where life is easiest—and among the agricultural community, there the cancer mortality is highest."

According to the "Hospital," he goes on to say that in London, where the wealth of the nation is "clotted," there the cancer mortality is highest of all in those parts of the Metropolis where the well-to-do most abound, that of west London being double that of the east.

We cannot, however, but feel that, when it is stated that a disease so common among the agricultural community is caused by "high feeding and easy living," there is a weak spot in the argument; and this very anomaly forces upon us, what other reasons would suggest, that, correct as may be the figures and statements made in regard to the co-existence of an increase of cancer with a growth of material wealth, the explanation is something very different from anything like ease and high feeding. We might, in fact, be tempted to ask whether the wide generalisation propounded by the late Henry George as to the constant relation between progress and poverty might not explain the prevalence of cancer in progressive countries, even on the older hypothesis that cancer is truly a "morbus miseriæ." Putting that on one side, however, we may fairly ask whether the connection between cancer and prosperity is not purely accidental, and whether the true relationship is not one between cancer and such conditions of existence as enable people to escape other causes of death.

Care of the Ears.

Never drop anything into the ear unless it has been previously warmed. Never use anything but a syringe and warm water for clearing the ears. Never strike or box a child's ears; this has been known to rupture the drum and cause incurable deafness. Never wet the hair if you have any tendency to deafness; wear an oiled-silk cap when bathing, and refrain from diving. Never scratch the ears with anything but the finger if they itch; do not use the head of a pin, or hairpins, pencil-tips, or anthing of that nature. Never let the feet become cold or damp, or sit with the back towards a window, as these tend to aggravate any existing hardness of hearing. Never put milk, fat, or any oily substance into the ear for the relief of pain, for they soon become rancid and tend to incite inflammation. Simple warm water will answer the purpose best. Never be alarmed if a living insect enters the ear; the bitter cerumen will soon cause it to come out, or pouring warm water into the canal will drown it, when it will generally come to the surface, and can be easily removed with the fingers. A few puffs of smoke blown into the ear will stupefy the insect.

Well-Water and Typhoid Fever.

It has long been known that in towns and villages supplied from wells the water may become contaminated, and typhoid fever result. The Massachusetts reports show this with much clearness. In 1856 the population of Massachusetts supplied with public water is figured at 24.56 per cent. of the whole. The deaths from typhoid fever in that year were 92.9 to each 100.000 of population. In 1895 the extension of public water works supplied 86.07 per cent. of the people of the State. The number of deaths from typhoid fever in the latter year had fallen to 36.4 per 100,000 of population.

Puerperal Pseudo-Rheumatism and Gonorrhœal Rheumatism.

Begouin (Edinburgh Medical Journal) after careful clinical research, concludes that the so-called "puerperal rheumatism," distinguished by Lorain from acute articular rheumatism in the puerperium, and from the arthritis of puerperal septicæmia, is nothing less than gonorrhœal rheumatism. Lorain traced it to infection from "normal leucorrhœa," or held it to be a direct result of pregnancy and the puerperium. Begouin contends that the clinical records of the older cases of "puerperal rheumatism" and the bacteriological reports of more recent cases alike prove that the disease is gonorrhœal. It nearly always takes the form of an acute, non-articular arthritis, obstinate, hard to treat and often ending in ankylosis. These characters are just the same as in typical gonorrhœal rheumatism in the male or non-parturient female, whilst a bacteriological inspection of the articular fluid and of the genito-urinary secretions can finally prove the identity of this disease. Treatment is the same as in non-puerperal gonorrhœal rheumatism. Of course the discharge itself must be cured; there is little fear that it will be neglected if once detected. Yet though gonorrhœa is so perilous to the eyes of the fœtus, and though most diseases modify pregnancy or are modified by it, gonorrhœal rheumatism seems to have little influence either on pregnancy, delivery, or even lactation.

Serum Diagnosis of Yellow Fever.

P. E. Arehinard, John J. Arehinard and R. S. Woodson publish in the New Orleans Medical and Surgical Journal a report of their investigations concerning the serum diagnosis of yellow fever.

From their observations the authors reach the following conclusions:

1. Our work demonstrates the practical value of serum diagnosis in yellow fever.

2. It may be utilized as early as the second day, and be exceptionally present as late as nineteen years after the disease.

3. That a dilution of 1 to 40 with a time limit of one hour is to be preferred for accuracy of diagnosis.

4. That the dried blood of Wyatt Johnston is perfectly satisfactory.

5. That the serum diagnosis of yellow fever should be instituted in all countries wherein the disease may exist endemically, or which may be visited occasionally by epidemics.

6. That it is especially valuable at the beginning of an epidemic in the diagnosis of early and doubtful cases.

Hysteria in Childhood.

Bruns has recently published an important monograph upon this somewhat neglected subject. (Boston Medical and Surgical Journal). One of the chief differences between the hysteria of childhood and that of adult life is that the former often presents itself in a monosymptomatic form, as a paralysis, a contracture, or a limited spasm, and that sensory disturbances, especially anesthesia, and the hysterogenous or hysterofrenic zones are often absent. Paralytic conditions, contractures, astasia-abasia, aphonia, mutism, stammering and obstinate blepharospasm are important symptoms. Symptoms of motor irritation, such as tremor, chorea, grimaces, tics and spasm are not infrequent, and attacks of a psychical nature, delirium, somnambulism, chorea magna and obsessions are also of importance. The commonest sensory disturbance is hyperæsthesia of the joints, but amblyopia and amaurosis are occasionally observed. Boys are as frequently affected as girls. The affection is most commonly seen between the ages of 7 and 14, but it is not rare in children under 6. The severer cases were more frequently seen in children from the country, especially from lonely and distant villages. Poverty and defective training favor the onset of the trouble. The influence of heredity is somewhat exaggerated, but it is important. Direct imitation of alarming symptoms of any disease which may come to the child's notice, together with defective training, plays a very important part. A nervous and hysterical mother may train a child badly, but the bad influence of an alcoholic father must not be ignored. The symptoms are often of psychical origin and are associated with defective volition; all of them may be produced more or less voluntarily, but loss of knee-jerk, degenerative atrophy. and similar "organic" symptoms form no part of uncomplicated hysteria; immobile pupils, fever, burns, etc., which have been described as hysterical symptoms, awaken a suspicion of deceit, but are not observed in children. The disregard of anatomical rules (paralysis on the same side as an injury to the head), the fact that the attacks are easily excited and as easily suppressed, the affection of only certain functions of muscles (as in astasia-abasia) point to the psychical origin of the trouble. It is often hard to draw the line between genuine hysterical symptoms and conscious simulation; to the natural tendency of hysterical patients to exaggerate is added the lively imagination of childhood. The prognosis is distinctly better than in hysteria of adults; not only the individual symptoms but the hysteria itself may be cured. Before the age of six, and after the age of twelve, when the influence of puberty begins to be felt, the prognosis is worse. The longer the symptoms last and the oftener attempts at cure have failed, the less likelihood is there of cure. The question of treatment is very thoroughly considered. Separation from parents and surroundings takes of course the first place, but, in addition, spe. cial treatment is often necessary. Except for tonic and strengthening treatment the only forms of treatment that are of advantage are those that affect the child's mind. Judicious neglect is of great advantage, especially in all paroxysmal attacks. Strong faradism and cold douches are of benefit, partly because they are unpleasant to the child, and thus lead him to control his symptoms. These form a part of what Bruns calls the treatment by "surprise," the direct command to "rise up and walk," on which he lays much stress, pushing it even to the point, in some cases, of direct corporal punishment. Suggestion may be of value, but he has not made use of it in the hypnotic state.

The Relation of Typhoid Mortality and Sewerage.

William Osler (Maryland Medical Journal) calls typhoid the sanitary index of a city. He says: "The mortality from typhoid fever has everywhere progressively declined with improvements in sanitary conditions." In London the death rate per million decreased from 307 in 1869 to 102 in 1892. Three factors have produced this —the cleansing of towns, the purification of water-supply, and the introduction of good sewers.

The typhoid death rate is an accurate measure of the efficiency of sewage removal and pure water supply. In J. W. Hill's statistics, no American city has fallen under 10 per 100,000, while ten out of thirteen cities showing a death rate of over 60 per 100,000 are American, the others being Milan. Cairo, and Alexandria.

In Munich, the death rate in 1857 was 291 per 100,000, while with good water and drainage systems it fell, in 1887, to 10 per 100,000. One half this decrease took place after the introduction of a good water system in 1865.

Baltimore has a typhoid fever death rate of a fairly well watered but unsewered town." The introduction of good water reduced the mortality from 74 to 80 per 100,000 to about 41, but this is not sufficient. With a good sewerage system, the rate should fall from 40 to about 8 per 100,000. The total cost of any plan, however elaborate, would be fully reimbursed in a few years by the saving of life and of unnecessary expense, in typhoid fever alone.

State Monopoly of the Manufacture of Alcoholic Beverages in France.

The question of the desirability of a State monopoly for the manufacture of alcoholic beverages having come up for discussion in France, an Extra-Parliamentary Commission was appointed to investigate the scientific and industrial questions involved. At the end of January, 1898, M. Duclaux, Director of the Pasteur Institute, presented the unanimous report of the sub-committee which had been considering the subject from a hygienic point of view. (Boston Medical and Surgical Journal.)

The commission is convinced that alcohol per se is the chief offender in the harm arising from the use of distilled spirits, and that therefore the most important thing to be gained in the way of reform is, first and foremost, that a less quantity should be drunk, and, secondly, that its quality should bė improved. And this latter, the commission believes can be brought about just as well without the intervention of a government monopoly.

In regard to cordials with high flavors, and made with essences, etc., the commission is most outspoken in their condemnation; and nothing, in their belief, can be done to make them innocuous. All the plans for monopoly which were presented for consideration included the making and sale of absinth and other *liqueurs;* and for this reason alone the commission could support none of them. Finally, the commission is convinced that all monopoly tends to increase the number of drinkers rather than diminish it, and concludes that from a hygienic point of view all attempts at monopoly are useless, for there can exist no such thing as hygienic alcohol, no matter how it be prepared or purified

The conclusions reached by the Committee are as follows:

(1) Alcohol, when consumed in the form of wine, beer, cider, or perry, is a substance whose moderate usage is without harm, provided these beverages are propery prepared.

(2) No distilled alcoholic spirit is hygienic, and beyond a certain limit the purest alcohol is dangerous.

(3) The natural impurities which come from distillation add their own dangers to the dangers of the alcohol containing them.

(4) In the alcohols destined for consumption the harmful action of the impurities of the most poorly rectified spirits is less than the harmful action of the alcohol containing them.

(5) The danger is much greater with the essences, flavors, and artificial ingredients which are added to the alcohol to make the vermouths, bitters and absinths of commerce. The harmful action of these substances, even when the purest, augments in a large measure the harmful action of the alcohol containing them..

(6) There is no substance that can be used in the production of such *liqueurs* that is not dangerous to the habitual consumer.

(7) It is desirable, as regards distilled spirits, to make them as harmless as possible. by securing their absolute purity, but the solution of the problem of alcoholism will not be found by so doing. The *liqueurs*, however, present such great dangers to the public health that it is necessary to try to restrain their use so far as possible. Also an attempt should be made to find ingredients to make them less harmful; but at present there are none known which are not harmful to the organs of the body.

(8) All reform ought to seek first of all to diminish the amount of alcohol consumed, and, secondly, to improve its quality.

Studies on the Gonococcus.

Dr. Heima (Med. Rec.) reaches the following conclusions:

1. The gonococcus can be kept alive in certain liquid culture-media as long as eighty-two days.
2. It can be transplanted, probably indefinitely, from one culture-medium to another. The author succeeded in transplanting it twenty-five times.
3. Cases of gonorrhea really cured are free from gonococci. Fifteen cases of chronic urethritis, pronounced cured on clinical evidence, were found to be entirely free from gonococci, as judged by cover-glass preparations and cultures.
4. The statements of Strauss, Pescione and Eraud, that the gonococcus occurs in the normal urethra, is not satisfactorily proven by their own published experiments.
5. Rectal gonorrhea can often be detected by suitable examination. In two out of four of the author's cases, the bacteriological examination gave positive results.
6. Gonorrheal arthritis may be a sequela of ophthalmia neonatorum.
7. The author's experiments on the inoculation of the eyes of new-born rabbits and kittens with gonococci gave negative results.

Writers' Cramp.

Dr. Edward W. Wright states that writers' cramp has three chief theories regarding its pathology:

1. A local disease; a weakness in some muscles permits the over-action of their antagonists, which increases the spasm.

2. A reflex action; the result of the stimulation of the sensory nerves in the act of writing.

3. A central origin; a want of proper balance in the co-action of the motor centres concerned in the action of writing.

The latter seems to be the most satisfactory. In the muscular group of the eyes we can have all the causes present. If the causes be present in the ocular muscles that produce writers' cramp in the hand of writers, can we not have cramp in the muscles involved in reading?

Constant tension of all the ocular muscles at close range for long periods of time, with a weak individual muscle or pair of muscles with overtaxed nerves and an exhausted cortex, are the prominent conditions that would lead to spasm or cramp of the ocular group of muscles.

Those Who Should not Use Alcohol.

Dr. Clauston, of Morningside Asylum, Edindurgh, says no one should use alcohol:

1. Who have any family history of drunkenness, insanity, or nervous disease.
2. Who have used alcohol to excess in childhood or youth.
3. Who are nervous, irritable, or badly nourished.
4. Who suffer from injuries to the head, gross diseases of the brain, and sunstroke.
5. Who suffer from great bodily weakness, particularly during convalescence from exhausting diseases.
6. Who are engaged in exciting or exhausting employments in bad air and surroundings in workshops and mines.
7. Who are solitary or lonely, and require amusement.
8. Who have little self-control, either hereditary or acquired.
9. Who suffer from brain weaknesses the result of senile degeneration.

Post-Partum Eclampsia.

Lemichez puts on record a case in which a woman, aged 22, developed post-partum eclampsia after a normal labor, which had been followed, however, by rather severe after-pains, necessitating the giving of opium. (Med. Times and Register.) She made a slow but complete recovery. This was the patient's third pregnancy, and it is noteworthy that her first labor (forceps) had been complicated by eclampsia, and that the attacks had continued into the puerperium, notwithstanding a free natural hemorrhage at the time of delivery. Her second gestation had been accompanied by slight edema of the ankles, but had terminated normally and without incident. In the third pregnancy the attacks of vomiting had been persistent and very troublesome, and she had suffered for three months from almost continuous headache. These phenomena occurred before she came under medical treatment in the Maternity Hospital.

Surgery of the Lung.

Like that of the viscera, surgery of the lung has of late made much progress, thanks to the perfection of our anatomical knowledge and to the improvement in operative procedures for the arrest of hæmorrhage. Equally favourable conditions for surgical intervention do not occur in all affections of the lungs. Wounds caused by contusing bodies, by stabbing and cutting instruments, and by gunshot projectiles of small and medium calibre, usually heal well without causing suppuration or troublesome reaction. The danger which results from such injuries is due, not to the injury of the lung structure itself, but rather to the multiplicity and extent of the wounds and to the lesions of important neighbouring parts. The surgeon should not intervene too hastily in these injuries.

Use of Alcohol.

The use of alcohol, in combination with water, and with osganic and saline compounds in the various forms of "fermented liquors" deserves particular notice on account of the numerous fallacies which are in vogue respecting it. It may be safely affirmed that alcohol cannot answer any of those important purposes for which the use of water is essential to their appropriation by the living body. Secondly, the ingestion of alcoholic liquors cannot supply anything which is essential to the due nutrition of the system, since we find not only individuals but whole nations maintaining the highest vigour and activity without ever employing them as an article of diet.

The reason why Hagee's Cordial gives results is that it contains all the active constituents of Cod-liver Oil, derived from the liver of the Cod. It also contains Hypophosphites of Lime and Soda that prevent waste of tissue and promote constructive tissue metamorphosis.

The So-Called Retinal Epilepsy.

Amongst the many items of original observation in disease for which we are indebted to the clinical genius of Dr. Hughlings Jackson is the description of what he once named "Retinal Epilepsy." (Hutchinson in Archives of Surgery.) The name was, I believe, subsequently abandoned as not being strictly appropriate, but no one has found a better, and meanwhile the conditions so designated remain a reality. They consist in the sudden, but quite temporary, loss of function on the part of the retina or some portion of it. It is possible that in some cases a deeper region of the nervous apparatus of vision is affected. At any rate the patient becomes suddenly either in part or wholly blind, and after a longer or shorter time the sight returns again. Thus proof is afforded that the suspension of function is not due to structural changes, but rather to some alteration either in the nervous state or the vascular supply which may completely pass away. Sometimes both eyes are affected, and sometimes only one or a part only of one. As the phenomena are purely subjective, we have only for our guidance the patient's description of them, and as they are often of very short duration the opportunities for observation are often not the most favourable. Many circumstances suggest that they are of reflex origin, for they often occur during attacks of liver derangement, and are followed by other indications of disturbed health. They are very prone to recurrence, and often after more or less regular intervals. Thus in many features they conform to what we know under the name of Epilepsy, and may perhaps still be placed conveniently not far distant from that group of nervous phenomena.

Syphilitic Jaundice.

Werner bases his observations on 57 cases occurring among 15,799 cases of early syphilis. (British Med. Journal.) Syphilitic jaundice is characterised by (1) its appearance in the early secondary stage; (2) the presence of fresh specific manifestations; (3) the influence of treatment; and (4) its sudden development without gastric disturbance. As regards the last point it must be remembered that slight gastric symptoms may accompany the appearance of constitutional syphilis. Long duration is not characteristic of syphilitic jaundice, as catarrhal jaundice may also last a long time. In typical cases this icterus occurs at a time when syphilis affects the skin and mucous membranes. There are some other cases in which the above characteristics are not always present. The author does not believe that mercury can be the cause of the jaundice. In these more exceptional cases caution is needed in coming to a conclusion. Among the 57 cases there were 11 atypical ones, in some of which the jaundice followed upon a relapse, in others it preceded a relapse, and in the remainder took the place of the relapse. The frequency of syphilitic jaundice was represented by 0.37 per cent. It occurs more frequently in women than men, but then the observations in women were more complete. Ordinary catarrhal jaundice may occur in the syphilitic, and here the author refers to an epidemic of jaundice in which many prostitutes and other women under observation were among those affected. The jaundice may also be an early manifestation of cirrhosis of the liver. Of course, jaundice occurring in late syphilis is quite distinct from that described above. The intensity of syphilitic jaundice varies. Xanthopsia was observed in 3 cases. In many cases the jaundice increased when the anti-syphilitic treatment was commenced, and after reaching its acme rapidly disappeared. Hepatic enlargement was not a striking feature in the disease. In 22 out of 50 cases the jaundice was noted within six months after the infection. The syphilis in most of the cases was severe. In 50 cases cutaneous affections were present in 18, affections of the mucous membranes in 16, and both combined in 16. Marked glandular enlargement was present in 41 out of 50 cases. The author then gives the views of authorities on the nature of this form of jaundice. There are two chief views, one of which would attribute the jaundice to compression by enlarged glands in the portal fissure, and the other to a papular eruption in the intestinal tract similar to that seen on the skin. There is no morbid anatomy known in support of either of these theories.

Syphilis from a Finger-Chancre Which was Ill Characterised in Its Early Stages.

A surgeon has just been with me who has a chancre on the side of his forefinger and is covered with a syphilitic eruption. (Hutchinson in Archives of Surgery.) His case presents some features of special interest. In the first place, he has, in addition to a considerable mass of glands in his armpit, enlargement also of those under the clavicle. This is just what happens in infection of the lymphatics from cancer of the breast, but I do not remember to have seen it before in the axillary bubo of syphilis. The latter usually restricts itself to one or two isolated glands in the armpit itself.

The next point is that, although my patient is an observant man, he cannot offer the slightest conjecture as to how he got infected. He says that he never recollects any prick or scratch on his finger. He is not to any great extent exposed to risk, not seeing many syphilitic patients and not doing much midwifery. What he first noticed on his finger was a little pustule, which he pricked with his scarf pin to let out a small quantity of matter. It was somewhat painful from the first, and latterly has been very much so. No one of his medical friends to whom he showed it would at first admit that it was suspicious, and as a consequence he got no treatment until the eruption came out, and this was five or six weeks after the first observation of the pustule. The sore meanwhile had inflamed, and had come to present a hard, raised margin as far round as a sixpence, with an ulcer in the centre.

Treatment of Syphilis.

F. S. Lewis (The Clinical Journal) says:

"The great point is to avoid giving mercury until you are sure that the patient is suffering from syphilis. This is worthy of your attention, especially having regard to lesions that may develop in after life. If a patient presents himself to you with a sore of uncertain nature, you may think that because it is indurated, and because he has some indurated glands in the groin it is syphilis. You are perhaps not absolutely certain, nevertheless you wish to be on the safe side and begin a mercurial course. Nothing can be more harmful! The symptoms perhaps clear up; but still, having committed yourself to a diagnosis of syphilis, you feel obliged to give him his full course, thus codemning one to whom it is worse than useless to a two years' mercurial course. He goes forth to the world hall-marked, and you know him as a syphilitic subject. In after life the man, thinking he has had syphilis, because you have treated him for such, develops an ugly looking sore on the tongue, and it is a question as between syphilis and epithelioma. You ask him whether he has ever had syphilis, and he replies in the affirmative. That probably makes you jump to the conclusion that the ulcer is syphilitic, and you put him upon iodide of potash, or perhaps some mercurial preparation. After losing much valuable time you find out that it is epithelioma after all, a fact which would have been apparent much sooner had there been no suspicion of syphilis through the original faulty diagnosis. On the other hand you may say, 'If we do not give mercury as soon as we think that the sore is probably syphilitic, we are doing our patient harm; we are allowing the disease to make headway.' But it is not so, for you will find that the administration of mercury, even when constitutional symptoms have appeared, is just as efficacious as when given in the primary stage. By constitutional symptoms I mean the syphilitic roseola which usually appears on the abdomen accompanied or not by the specific sore throat. There is no doubt one often does give mercury before the roseola appears, but then one is absolutely certain that the man has contracted syphilis. If a man comes with a sore on the prepuce or glans penis, which is both markedly and characteristically indurated, with possibly no abrasion of surface, or with a shallow depression not sharply punched out, with a healthy reddish looking surface, not that yellowish surface characteristic of a chancroid; if he has also—and this is more important than all—enlarged and hard glands in the groin which show no sign of matting or running together, you may put that down with absolute certainty as syphilis, especially if the history bears this out. Under these circumstances the sooner you commence to give mercury the better."

Difficult Defecation in Infants.

Thomas Charles Martin, in the Journal of the American Medical Association, has a good paper on this subject. He summarizes as follows:

1. The infant's lower gut is muscularly deficient.

2. The peritoneum of these parts in the adult is observed to be relatively very considerably shorter than that in the infant.

3. The rectal valves appear to bear the same proportion to the gut in both adult and infant, but when we remember the difference in muscular development in the two the disproportionate resistance of the valve in the infant rectum is obvious.

4. The anal expansibility is remembered as adequate in the adult, and is seen to be deficient in the infant.

Co-relative to the facts just stated, we must recognize that the adult rectum has resident within its own wall a powerful expulsive muscular mechanism; that the shortening of the mesentery holds the upper rectum steady under the applied auxiliary forces; that the angulations of the sigmoid are not necessarily obstructive, though in a desirable measure retardative; that the forward incline of the lower sacrum and coccyx behind, and the development of the uterus and prostate and their inherent supports in front, provide the lower adult rectum with a firm funnel-like árrangement which guides the feces directly upon the os internum of the anus; that the valves divide the feces into portions to facilitate their separate successive discharge; and finally, in sequence, that the physiologic descent of the structures of the ischio-rectal space reduces this last resistance to the minimum in adult defecation.

Straining, the ruptures, and prolapses, constipation, retention of feces and the multitudinous consequent ills have demanded our patient inquisitive consideration; and this study forces the conclusion that the individual's escape is assured by process of development, but that for the normally formed infant the physician will find the solution of the problem of difficult defecation in the solution of the stool.

Recurrent Hepatic Fever.

Friedel Pick records a case throwing some light on the much-debated etiology of this affection, which Charcot, who first described it, considered to be of a septic nature, but which Budd and Frerichs pronounced aseptic, like the well-known "catheter fever." (British Med. Journal.) The patient was a woman of 49, who suffered for eighteen months prior to her death from periodical attacks of biliary pain with fever and rigors, followed after a few days by intense jaundice; the stools varied in colour from normal to that of putty, but no stones were ever observed in them. Between the attacks the patient was still slightly jaundiced but afebrile; the liver reached two fingers'-breadths below the ribs and was tender, but the gall bladder could not be made out. Many of the attacks observed in hospital were painless; the liver enlarged rapidly during a crisis, and then slowly resumed its normal size. In most of the attacks there was exceptional leucocytosis. The patient eventually died of cholæmia, and at the necropsy the common bile duct was found blocked by a stone, the gall bladder was atrophied, and the liver had undergone the usual changes consequent upon total biliary obstruction; the bile ducts contained colon bacilli. Pick considers the fact that painless attacks sometimes occurred goes against the irritative theory of the etiology of the disease, which he is inclined to attribute to poisoning by products of, in this case, the bacillus coli communis. He lays great stress on the leucocytosis, and holds that in a case of cholelithiasis with recurrent febrile and colicky attacks the absence of leucocytosis between the attacks shows that a pyæmic or suppurative condition is absent, and that operation is therefore not contra-indicated. A further point of interest was noted by Regnard: that during the attacks there is a marked diminution in the urea excreted; this was quoted by Charcot as one of the most convincing proofs that urea was formed mainly in the liver. Pick, however, by 50 daily observations on the urea, total N, and ammonia of the case under notice, showed that all three curves fell in like degree during the crisis. At the same time the amount of urine diminished, so that all the urinary changes can be explained simply as the result of the diminished amount of food and drink consumed, there being no replacement of urea by ammonia in the urine as Regnard imagined.

Infantile Convulsions.

Dr. Sanger (Maryland Medical Journal) concludes a valuable paper as follows:

1. Convulsions are most frequent under two years. There are two periods of frequency—under one month and between six months and two years.

2. The nature of the nerve reaction resulting in a convulsion is not understood, but it is probable that instability of nervous tissues at this period of life favors this reaction.

3. Convulsions are frequently observed in adult life, and result from auto-intoxications and other causes.

4. Convultant substances may be introduced from without or generated within the economy; (*a*) Substances useful to the economy, if they accumulate, become harmful—for instance, water, carbonic acid, mineral substances, the salt of biliary acids, soluble ferments, toxins not ferments in saliva, alkaloids of secretion in urine; (*b*) infectious agents may elaborate toxins; (*c*) organisms constantly present in the economy under certain circumstances may become infectious agents.

5. The instability of all the organs and tissues of the infant economy makes auto-intoxication common.

6. Convulsions occurring in rachitis and diseases associated with great nutritional disorders; all forms of gastro-intestinal disorders; the acute infectious fevers—are most readily explained on the grouud of auto-intoxication.

7. Convulsions resulting from marked disturbances in the respiratory and circulatory systems, as, for instance, asphyxia and hemorrhage, are in all probability toxic.

The reflex origin of convulsions is probably not common. It should, however, be noted that when the so-called convulsive habit is established reflex disturbances may bring on a spasm.

Eggs as Food.

Would it not be wise to substitute more eggs for meat in our daily diet? About one-third of an egg is solid nutriment. This is more than can be said of meat. There are no bones, no tough pieces that have to be laid aside. A good egg is made up of ten parts shell, sixty parts white, and thirty parts yolk. The white of an egg contains 66 per cent. water and the yolk 52 per cent. Practically an egg is animal food, and yet there is none of the disagreeable work of the butcher necessary to obtain it. The vegetarians of England use eggs freely; and many of these men are eighty and ninety years old, and have been remarkably free from sickness. Eggs are best when cooked four minutes; this takes away the animal taste which is offensive to some, but does not harden the white or yolk so as to make them difficult to digest. An egg if cooked very hard is difficult of digestion, except by those persons possessed of stout stomachs; such eggs should be eaten with bread and masticated very finely. An egg spread on toast is fit for a king—if kings deserve better food than anybody else. Fried eggs are much less wholesome than boiled ones. An egg dropped into hot water is not only a clean and handsome, but a delicious morsel. Most people spoil the taste of their eggs by adding pepper and salt. A little sweet butter is the best dressing. Eggs contain much phosphorus, which is supposed to be beneficial to those who use their brains much.

Insanity in Australia.

It is popularly supposed that the principal cause of insanity is intemperance. The experience of New South Wales, however, does not bear out this opinion. The amount of insanity directly due to drink, though certainly large, is not so considerable as that due to other causes. As far as the records of the Colonial hospitals show, the proportion of persons admitted suffering from insanity traceable to intemperance was not more than 9.99 per cent. of the total admissions for the ten years ending with 1896. Persons suffering from mania induced by excess of drink recover comparatively quickly, and at any one time their number in the hospitals for the insane is scarcely more than 5.5 per cent. The most potent cause appears to be hereditary influence. How far this is productive of insanity cannot, however, be exactly determined; for although the New South Wales Inspector-General of the Insane, a high authority on lunacy, has ascertained that hereditary influence and congenital defect can be credited with only 11·61 per cent. of the total insanity, this percentage gives no idea of the actual amount of hereditary insanity in the colony. Of the large number of patients the causes of whose insanity is unknown, it is believed that in most instances the insanity is due to hereditary influence; and even in those cases where the primary cause of insanity has been ascertained, there is a strong presumption that many of the patients have inherited an insane neurosis.

Cancer a Contagious Disease.

Dr. Leon Noel, according to the British Medical Journal, has collected a large amount of information on this subject, more particularly in support of the idea that the origin of cancer should be sought for in some widely spread condition affecting very various organisms both animal and vegetable. This idea, originated by Flessinger, is based first of all upon the fact that cancer seems to be most frequent in isolated houses on the banks of rivers, especially if close to woods. It has also been observed that trees under these same conditions are affected with veritable tumours which present a curious resemblance to cancer. Among other facts cited by Noel is one which goes to show a certain relation between arboreal "cancer" and that of man; that is not only the frequency of malignant tumours in habitations surrounded by or near woods, but also a considerable mortality from cancer among certain persons whose occupation obliges them to live in these conditions; thus Excise officers who in certain parts of the country pass a considerable portion of their time in isolated paths through woods have frequently been observed to suffer from cancer. The statistics of Julliard, Bierry, and Flessinger all contain considerable numbers of Excise men, and it is now a known fact that country labourers are very predisposed to cancer, and traumatism, scratches from brushes, &c., have been thought to have considerable bearing on the etiology of cancer.

Cancer of the lip is said not to exist at Lyons, and all those who go into hospitals there to be operated on for growth in that situation come from the fields. The malignant vegetable tumour is found in woods and orchards. This tumour appears to be contagious; a good number of them often found in the same neighbourhood. Insects, as shown experimentally by Morau, more particularly the large wasps found in woods, seem to have a certain predilection for arboreal "cancer. Not only do they carry infective material from one tree to another, but they also disseminate it into human food. Ruffer's observation is quoted that large numbers of protozoa live on insects in the form of saprophytes, and it is quite easy to understand how insects could carry any infective material, and the question is asked: Is it possible for a human being to develop cancer as the result of such infection? It is also easy to understand how water, especially in the neighbourhood of woods, could act as the medium of transport. In point of fact Flessinger speaks of two different methods in which cancer may be propagated—from food and by the fingers. In the one case cancer of the alimentary tract will result; in the other any external portion of the body may be affected. Although these questions are merely hypothetical, they merit further observation.

Alcohol and the Death-Rate.

We have frequently, says the "British Medical Journal," had occasion to point out the extraordinary and unwarranted misuse of a table embodied in the report of the British Medical Association's "Inquiry into the connection of diseases with habits of intemperance," which was presented at the Doublin meeting in 1887. Our readers will remember that the table in question showed the average age at death among 4234 patients reported on to have been: Of abstainers 51 years and 22 days, and of the decidedly intemperate 52 years and 14 days. These figures, with others, have been widely construed as proving that "teetotalism is dangerous to life." Yet the report contained the distinct statement that from these returns no conclusion could be formed as to the relative duration of life of abstainers and habitually temperate drinkers of alcoholic liquors. Though the fallacy referred to has been exposed again and again in the "British Medical Journal" by the chairman of the Committee and of the Association's Inebriates Legislation Committee, and by other authorities, the misuse and misinterpretation are still being persisted in. Mr. James Whyte has addressed to us a letter once more exposing the fallacy on which this misrepresentation is based. The number of living abstainers under 25 years of age is much less than the number of living non-abstainers, abstinence having progressed most largely in the young, so that the average age of abstainers at death must be less.

The sceptre life office found that their abstaining insurers were several years younger than their non-abstaining insurers. At 25 the death-rates showed a difference in favour of Rechabites of 0.64. The general Rechabite death-rate has been 7.50 per 1000, against 24 per 1000 among general males. Other tables embodied in the report confirm the accuracy of this explanation. When deaths under 30 were excluded the average age of the abstainers at death was about four years more than that of the decidedly intemperate. When all deaths under 40 were excluded, the average age of the teetotalers was one year greater than that of the free drinkers, and more than five years greater than that of the intemperate. In protesting most strongly against this unfounded misrepresentation of the report of the inquiry, we append one of the conclusions of the Committee—that habitual indulgence in alcoholic liquors, beyond the most moderate amounts, has a distinct tendency to shorten life, the average shortening being roughly proportionate to the degree of indulgence.

Subacute Milk Poisoning Caused by Pasteurized Milk.

Dr. Henry Koplik (Med. Record) describes an interesting case, a boy, five years of age, weighing forty-one pounds, only child of healthy parents, brought up in infancy on sterilized milk. The child was well up to about a year ago, when, it may be mentioned, the sterilization of the milk in his food was omitted. He then suffered occasionally from a diarrhœa; the diarrhœa consisted of five or six profuse movements, which would weaken the boy. After dieting in various ways the patient recovered. The boy remained well during the past summer in the mountains, but at intervals suffered from a slight looseness of the bowels. He gained in weight. During the past five weeks he began to have two or more diarrhœal movements daily. Diet during this time contained among other things, as a principal or exclusive element, pasteurized milk. No fever curve.

Status: A well-nourished boy; tongue clean; no pyrexia even in the evening; the skin elsewhere showed a very few varicella spots of quite recent maturation; no enlarged spleen or mesenteric glands or lymph nodes. The patient once a day would have a very large normal movement, and at night a profuse watery movement of yellow color; this had a very sour odor, which penetrated the room. After such a movement the patient was weak, though he insisted that he should play around the house. No pyrexia. At this time the boy was, and had been for a period of two weeks, on an exclusively milk diet. The family being well-to-do, the milk was obtained and modified at the best laboratory in town, on the Rotch plan. The ingredients of the milk were constantly changed by the attending physician. who argued that there was a neurotic intestinal diarrhœa. A consultation with a noted pædiatrist before I was called in led to the supposition that there was an irritant of some kind in the gut, and high injections were advised. The milkd uring all this time was pasteurized, and was the exclusive diet. After a close study of the case, having in my mind placed it with others of the same kind I had seen before, I pronounced it one of milk poisoning, pure and simple, in a very susceptible subject. I observed the lad closely for two days and convinced myself that the history given me by the parents were correct. The patient was kept for weeks on the milk which had been his food. He was not allowed even a crust of bread; he had been having bread dipped in meat juice once or twice a day. His temperature was normal. There were one or two large formed movements daily; toward evening the boy would have a profuse movement, partly solid, partly fluid; and of an intensely sour and penetrating odor. The pasteurized milk of the laboratory was stopped and the boy placed upon milk sterilized at 100 deg. C. for forty minutes, with five grains of tannigen, *t. i. d.* The improvement was immediate and progressive. The movements became brown, of normal odor and consistence. The boy gained in strength, and gradually after a week other articles of diet were added to the milk, until a full, properly mixed diet was reached. After a year we find the boy still perfectly well, with the exception of an attack of vomiting and diarrhœa this summer, of a few days' standing. During this time the sterilizer had been broken, the milk was not sterilized, and the boy's illness can fairly be traced to this fact. To-day he is well, and a finely nourished lad.

Ventral Fixation Becoming Obsolete.

At the last meeting of the American Medical Association, Dr. Prince, of Philadelphia, announced that he had for some time been compelled to open the abdomen twice a week on an average, for the liberation of ventrally fixed uteri. (Modern Medicine.) He argued with much earnestness and force that the uterus is a very movable organ, and that the top of the organ especially is intended to move freely in the abdominal cavity, particularly in the anteroposterior direction, in order to accommodate the varying conditions of the bladder and the rectum. Fixation of the uterus to the abdominal wall prevents these movements, and thus tends to disease, besides entailing the risk of intestinal entanglement.

In the discussion of a paper recently read before the Medical Society of the County of New York, Dr. Gill Wylie, a gynecologist of considerable note, announced that he had never been able to convince himself of the propriety of attaching the uterus to the abdominal wall. An infinite number of objections have been brought against the performance of the ligament operation, but the real objection, after all, though rarely confessed, has been lack of knowledge as to how long it should be performed, or lack of skill in its technique. As surgeons are becoming better acquainted with successful methods of performing the operation, prejudice is rapidly disappearing, and it must soon be universally recognized as the only rational operative method of dealing with retro-deviation.

Treatment of Delirium Tremens.

Dr. T. D. Crothers, in a recent paper on this subject, said that delirium tremens was a condition occurring as a result of alcoholic injury to the brain centres. There were many reasons for believing that in a certain number of cases it was due to bacteria, and in a still larger number to autointoxications of various kinds, such as those connected with the action of the kidneys and liver. It also occurred as a direct result of traumatic lesions. Post-mortem examination always showed parenchymatous degeneration of the liver and heart, acute inflammatory conditions, anæmia, and profound disturbance of the vital forces. In the treatment of delirium tremens Dr. Crothers believed that all spirits should be removed at once, and that the theory that sudden withdrawal of alcohol caused the delirium was not only erroneous, but that it had led to many deaths. The use of opium, chloral, and the bromides he considered to be equally dangerous, as these drugs, and especially chloral, did not promote the elimination of the poisons. Elimination should be the cardinal objective point of the treatment. The first requisite was the hot-air bath, or, in private practice, hot sponge or tub baths. This treatment must be kept up for two or three days, and every effort made to establish and maintain free diaphoresis. An old but very useful treatment was free catharsis by calomel and salines. Restraint should be modified, and alternated with much liberty. As a rule, the patient did better when allowed plenty of space in which to walk about and work off the muscular excitement. According to general experience, this muscular excitement lasted but a short time—rarely more than thirty-six hours—when such liberty was allowed. It should not be forgotten that muscular delirium and sweating were Nature's efforts to remove the exciting causes of the disease. The classical delirium tremens of the text-books was rarely seen. Melancholia, dementia, and death were often directly the result of reckless drugging and the continuance of alcoholic stimulants.

The Local Treatment of Painful Ulcerations by Orthoform, with Special Reference to the Upper Air Passages.

Eugene S. Young, M. D., (British Medical Journal) in discussing this subject says:

The anæsthetic presents a triple claim to recognition, in that it is sparingly soluble, is non-toxic, and is powerfully antiseptic. On the other hand, it is a disadvantage that the substance will not act on unbroken skin, nor, with certain reservations, on intact mucous membrane, for its strong anæsthetic properties are only manifested where nerve endings are exposed. The slow solubility leads the anodyne to exert its action economically on the tissues, and unlike its rapidly soluble congener, cocaine, only sufficient is dissolved to produce and keep up local insensibility, which therefore becomes prolonged. In from five to ten minutes after application anæsthesia of the denuded surface to both touch and pain commences, and it reaches its consummation within a short period of time. The effect lasts from a few hours to five or six days, and there is, in the majority of cases, perfect or nearly perfect analgesia, the patients experiencing the sensation of the offending part having been cicatrized over or "enammeled." Suppuration is usually markedly diminished, and healing accelerated.

The action of orthoform on the unbroken mucous membrane of the mouth, nasopharynx, and larynx is, in my experience, the following: Neither the free orthoform (basis powder) nor the hydrochloric anæsthetise sufficiently to allow of surgical action. When applied to the tongue, inner surface of the cheek, or to the pharynx, a numb sensation supervenes in the course of about five minutes, but there is little real anæsthesia. The effect on the larynx is to reduce reflex irritability. In a few minutes more this relative loss of sensation vanishes, but if before its subsidence a probe be introduced and the vocal chords and interior of the larynx touched, although a species of "gaging" ensues, there is no laryngeal spasm or cough. In the same patient a similar procedure without the previous introduction of orthoform causes intense discomfort and a fit of coughing. The intact nasal mucous membrane is also slightly amenable to the influence of the drug. A feeling of numbness is evidenced in about two minutes, and this merges into real anæsthesia, which is, however, feeble and transient.

I have had the opportunity of testing the anæshetic value of orthoform in eighteen patients who suffered from painful ulcerations of the upper respiratory tract, and a few representative cases are now quoted:

Case X.—L. F., aged 24. Tuberculous ulceration of the epiglottis; phthisis. The pain on swallowing and on coughing was intense, and the patient had avoided any but liquid food for three months. A 10 per cent. solution of cocaine gave more or less ease for six hours. Five grains of orthoform were insufflated on to the ulcerated surface, and relief began within an hour and lasted for thirty hours. The pain on swallowing and coughing was reduced to almost nil, and the patient succeeded in taking food with comfort for the first time for more than three months.

Case III.—H. H., aged 56, clerk. Epithelioma of soft palate and tonsil. There was an offensive cavity in position of the left tonsil, a large ulcer to the outer side, and advanced glandular infection. The patient suffered intense pain on swallowing, and also was much afflicted by severe and constant neuralgia from the deep pressure of the growth. Orthoform (five grains) was blown into the cavity and upon the ulcer, and relief began in the course of half an hour. Almost all pain on swallowing was abolished, and this improved condition lasted a week. The man ate some solid food (about half a mutton chop with bread) within a few hours of the application after a long abstinence from all but liquids. The neuralgia was not diminished at all.

Case VI.—Mrs. H., aged 35. Tuberculous ulcer on posterior and upper surface of the right arytenoid. Phthisis. There was some dysphagia, and it was a matter of difficulty, owing to the peculiar situation of the breach of surface (exposed as it was to constant friction) to persuade any drug to remain in contact with it. A thick paint of orthoform and collodion was applied, with the result that the patient expressed herself considerably relieved from the dysphagia—this condition lasting about twelve hours.

CASE VII.—E. M., electrician, aged 54. Laryngeal and pulmonary phthisis. Had pain on swallowing for two months before admission to the hospital. This was gradually getting worse, and solids, semi-solids, and liquids caused great discomfort. He "could not take any breakfast at morning" in consequence. Orthoform (five grains of the basic powder) was insufflated into the larynx, and relief began within half an hour, when saliva could be painlessly swallowed. A solid meal of chop, bread and potatoes, was taken three hours after the application with little or no inconvenience. A feeling of dryness in the laryngeal region began after the meal, but relative relief lasted for twelve hours. The next morning the throat was extremely sore.

CASE II.—H. B., aged 40, striker. Laryngeal and pulmonary phthisis. Interarytenoid thickening and an ulcer on the left cord posteriorly. There was considerable pain on swallowing even liquids or semi-solids. The patient, a very intelligent man, was instructed to use a laryngeal spray of a solution of orthoform. After the first application the drug, which acted like cocaine (to which he had been accustomed) gave relief in five or ten minutes, and this lasted for four hours. A second application gave comfort for two hours, and a third (of the powder) gave complete ease for three hours and modified comfort for 12 hours. The ulcer rapidly improved and the pain eventually ceased to trouble the patient.

CASE I.—F. B., aged 19. Scarlatina anginosa with much ingestion and ulceration of tonsils and fauces. Excessive discomfort on swallowing. Orthoform gave relief for twelve hours, and the youth could take his meals comfortably.

CASE XVI.—D. G. Syphilitic ulcer of left tonsil causing great pain and dysphagia. Pain absolutely relieved by powder in ten or twelve minutes; the parts were then painted over with a saturated solution of orthoform in collodion. The patient who had been unable to eat for some days without agony, took, on reaching his home, a good meal of beefsteak with comfort, but was disappointed to find that two hours after the relief commenced the pain was beginning again, and in another hour was as bad as ever. A similar result followed a second insufflation and painting.

CASE IX.—G. S. Intranasal ulcer, of catarrhal origin which had become irritated or septic. Situated on floor of nose, about 1½ cm. from external nares, and extending on to septum. Infiltration of surrounding parts, and great pain and tenderness of the nose generally. After insufflations of orthoform, relief began in five or six minutes and lasted several hours. The breach of surface also began to heal rapidly.

Toxic effects were not noted in any of the cases, but there was occasionally some slight burning for a few minutes after the application of the hydrochloride. This failure to discover toxicity is compatible with the statements that over twelve drachms have been sprinkled on a broken surface in the course of the week, also that 30 to 60 grains have been administered to rabbits, and 45 to 90 grains to dogs, without evil effects during life or the post mortem discovery of visceral changes. Orthoform fails to produce any result on an ulcer unless the dual precaution is taken to apply the drug directly to the loss of surface and to ensure its retention there.

No relief was experienced by patients suffering from either catarrhal pharyngitis, or quinsy.

The antiseptic action of orthoform appears to be demonstrated by the rapid diminution of purulent exudation in several of the cases encountered and the speedy healing of the ulcer. In a case of acute gonorrhœa injections of orthoform solutions were followed by the disappearance of gonococci in four days, and the complete cessation of blennorrhagia.

Finally, if further observations confirm the results already published, it would appear that orthoform is entitled to take a position in the gamut of local anæsthetics applicable to the upper air passages. It seems probable that it will replace, by virtue of its insolubility and innocuousness, its relative, cocaine, when long anæsthesia on ulcerated surfaces is looked for; be replaced by the more reputed drug when short insensibility of intact mucous membrane is desirable, and on occasion supplement it.

Tuberculosis in Man and Animals.

Dr. Kinsman, in a paper read before the Ohio State Medical Society, May, 1897, gives the following summary (Modern Medicine):

1. Tuberculosis in man and animals is due to one and the same cause, and is reciprocally communicable by inhalation, ingestion, and inoculation.

2. It may be limited by the same measures which have been found effectual in other microbic diseases.

3. The disease is much more infectious among animals than in man. This is especially true of cattle.

4, Statistics in Europe and America show that tuberculosis is rapidly increasing among the herds of our own horned cattle.

5. Danger of infection of the human family by these infected herds will thus be increased.

The Orthopædic Treatment of Spastic Paralysis in Children.

Dr. S. Ketch, (N. Y. Med. Journal) in discussing this subject, said that in patients so affected the mental condition varied exceedingly. In some it was idiotic, in others it was normal, or nearly so. The basis of all treatment was by special education of the muscles, by efforts of the will—as, for example, using the type-writer or playing the piano. In the case of a paralyzed hand electricity was found to be of little good, although the constant current might have some sedative effect. Massage could only be of value if it were employed so as to strengthen the normal muscles, and so enable them to overcome the spastically contracted muscles. Mechanical treatment should be directed to improvement in locomotion or reduction of the deformity, and produced its best effects in patients whose intellects were least impaired, and in deformities and disabilities of the lower extremity, especially when the judicious use of the superincumbent weight corrected the elevated and inverted feet. Tenotomy is a very valuable resource, and opposition to it is based on theoretical grounds, and the result in patients who are not proper subjects for operation or whose after-treatment had been neglected. Tenotomy not only made it possible to retain the foot in position, but had a decided effect upon the spasm. A very marked mental improvement often followed this treatment.

Rupture of the Heart.

Dr. R. P. Gober (Occidental Med. Times) reports the following rather interesting case. He says:

Rupture of the heart is such an unfrequent occurrence that the following case seems worthy of record. Rupture of the heart is usually preceded by degenerative changes in the heart walls and is due to aneurism of the coronary artery. The majority of such accidents occur after the sixtieth year and rarely before the fortieth year. Of 100 cases collected by Quain two-thirds of the patients were over 60 years of age. On December 31, 1897, E. W. F. ——, a well-developed man 38 years of age, in the act of stooping to pass under a fence dropped dead. The *post-mortem* findings were as follows: The pericardium was distended with fluid blood and large coagula. A sacculated aneurism of the terminal branch of the coronary artery on the anterior surface of the left ventricle, near the apex, was found, involving the septum and communicating with the left ventricle by means of a small orifice. The length of the fissure or rupture through the ventricular wall into the pericardium was one inch and a quarter. The rupture occurred during ventricular systole. The heart valves were apparently healthy and intact, and there was no fatty degeneration nor infiltration of the muscle. During the last ten years the patient's health had been unimpaired, with the exception of a compound comminuted fracture of the left leg, which he sustained in 1894, and an attack of *la grippe*, in November, 1897. At no time were there any symptoms referable to the heart until two days prior to death, when the patient walked into my office, complaining of oppression over the heart and a sense of weakness on exertion. I detected a distinct "bruit," heard only over the ensiform cartilage and not transmitted in any direction.

The Control of Nasal Hemorrhage.

Dr. E. B. Gleason (Laryngoscope) has treated severe post-operative nasal hemorrhage by simply wrapping a large piece of absorbent cotton loosely about a probe and thrusting it, dripping with a fifteen-volume solution of peroxide of hydrogen, along the floor of the nose until the pharynx is touched. The mass of cotton should be large enough to completely fill the inferior meatus. So great is the pressure caused by the increase in bulk of the clot already within the nose, and liberated gasses, that it is necessary, in most cases, to hold the cotton in position for a few moments with the finger-tip, during which time the probe is withdrawn. If necessary, the plug of cotton is then held in position by means of smaller pieces of absorbent cotton, saturated with peroxide, packed into the anterior naris in front of it.

To prevent recurrence of the hemorrhage when the plug is removed. the mass of cotton should be removed very slowly, with steady, gentle traction exerted at intervals of two or three minutes in order that five or ten minutes elapse before the plug is entirely withdrawn from the nose. The parts should be left unmolested for at least twenty-four hours. They should likewise be handled with the utmost gentleness. The patient should also be cautioned not to touch the parts.

Microcephaly and Its Surgical Treatment.

At the Royal Medical snd Chirurgical Society of London, March 8, 1898, Dr. Joseph Griffiths read a paper with this title. After making general remarks upon the nature of congenital microcephaly, he divided the cases into two main classes: (1) Those with small ill-filled but not deformed skulls, and (2) those with small and deformed skulls. (British Med. Journal.) The first class included those in which the brain was arrested in its growth in early embryonic life (three to four months) and in which the skull was natural but diminutive, the smallness being the result of a proportional diminution in all directions. In the second class the skull was not only small but misshapen, and the brain was not only diminutive but diseased, the disease giving rise to the alteration in shape, and the skull merely conforming itself to the enclosed brain. In the specimen described the skull showed no evidence of disease or of premature synostosis of its component parts. The following case illustrated the characters of Class 2: A. M., aged 16 months, a well-formed boy; his head was very small, measuring only 16¾ inches in its greatest circumference, and it was flattened from behind forwards, the hinder part being flush with the back of the neck. From front to back the head measured only 5½ inches, and from side to side 4½ inches, which was near the normal. He could not speak, nor could he sit owing to muscular rigidity of the lower limbs; this rigidity was also present, but to a less extent, in the upper limbs. Intelligence was very small. He was the firstborn of young, healthy parents, father and mother being 24 and 18 years of age respectively; forceps were used and chloroform administered at the birth. When 9 months old he suffered from fits for three days, being unconscious throughout one day and a night. On December 29th, 1896, linear craniectomy was performed on the right side, the idea being to make an artificial lambdoid suture. Recovery was uneventful and complete, and the operation was followed by marked diminution in the rigidity of the muscles of both upper and lower limbs; the boy became interested in all around him, and for the first time in his life showed a desire to play with toys. On January 12th, 1897, the opposite half of the artificial lambdoid suture was made. Infection of the wound followed, and septic meningitis supervened and produced death in five days. The brain was not only ill-developed, but it showed signs of disease affecting the cerebrum in more or less symmetrical patches. The skull was deformed, not from any disease or synostosis of its component parts, but merely from want of the natural stimulus that the enlarging brain gave to it. A summary and statistics of cases operated upon were given, and a list of the published cases operated upon in this country added. The conclusions were the following:—1. Congenital microcephalic idiots may be divided into two main classes (1) those with small ill-filled but not deformed skulls, and (2) those with small and deformed skulls. 2. In Class 1 the brain is at fault, being arrested in its development in an early period of embryonic life; in Class 2 there is in addition to arrested development of the brain evident disease of the cortex distributed in patches more or less symmetrically, the deformity of the skull being determined by the shape of the brain. 3. There is a hypothetical case in which the skull is prematurely synostosed and the enclosed brain more or less normal, but hitherto no evidence has been brought forward to show that such cases actually occur. 4. Craniectomy in all but the last-named (hypothetical) cases can be productive of no permanent good, as the original fault is in the cerebrum (or of the whole nervous system according to Giacomini) and not in the skull. 5. Where, however, there are symptoms such as general rigidity of the limbs, etc., which are in all probability due to irritation of the motor cortical centres, then operative interference (trephining or craniectomy) is likely not only to afford amelioration of the symptoms, but in some cases to lead to a substantial and even permanent improvement. 6. Hitherto the mortality from operations has been very high, but with experience it is likely that this will be materially reduced.

Massage in Intestinal Invagination.

A case is reported by Westerveld in which a child of eight months was suddenly seized with vomiting; rapid pulse, anxiety, and slight distension of the abdomen accompanied this. (Pediatrics.) A sausage-shaped tumor, directed from below upwards and from the left to the right, was found the next day, the general condition having been benefitted by a glycerine injection, and a dose of bicarbonate of soda. Rectal examination enabled the diagnosis of invagination of the large intestine into the ileum to be made. Reduction could not be effected. An injection of warm water was unsuccessful. Before performing laparotomy, Westerveld decided to try massage. The well oiled right index finger was introduced into the rectum, while with the oiled fingers of the left hand, he massed the tumor externally, making friction from below upwards. After five minutes of massage, large rectal injections were made, which caused immediate disappearance of the tumor. Two drops of laudanum were then administered to keep the intestines quiet.

Treatment of Ulcers of the Leg by Luminous Heat.

Dr. Colleville of Rheims has succeeded in curing certain ulcers of the leg by the combined action of heat, light, and ventilation, which he realizes in a very simple manner. (N. Y Lancet.)

He makes use of a Bunsen burner, which is put in communication with a gaspipe by means of an India-rubber tube. A small square of wire-gauze is heated by the blue flame of the burner until it is just red, and is then placed over the ulcer at a distance of 25 centimeters from it. The skin around the ulcer is protected against the heat by means of compresses. It is thus possible to reach a temperature of 45 deg. C., this being easily borne by the ulcer, which at the same time is subjected to incessant renewal of the air which intervenes between the wire-gauze and the leg. The flame of the burner can be easily regulated, so as to keep up constantly the same temperature.

The sittings last from twenty minutes to one hour, and the surface of the ulcer is then seen to be covered with a layer of glazed solidified serum, through which the granulation tissue is distinctly perceived. When the leg is hanging down, it will be well to see that the compresses protect efficiently the surrounding skin against the action of the emergent fluid. After removing the flame, the ulcer is left exposed to the air so as to complete the drying process. A bandage, soaked in some hardening substance, may then be wrapped round the leg, but a hole should be made in it just over the ulcer and covered with aseptic gauze. taking good care to avoid all contact between the ulcer and the gauze.

After the first sitting the pain and the venous stagnation diminish, and the patient is able to sleep better. Soon after, the granulation tissue begins to grow and a whitish epidermic rim forms round the ulcer. When the growth of the epidermis has reached a still more advanced stage, the heat-application may be more prolonged, but less intense.

Professor Colleville has in this way obtained complete cicatrization of the ulcer in from 5 to 25 sittings, according to the size and age of the ulcer.

This method is evidently very easy of application wherever coal-gas is at hand. If this should not be the case, in the country for example, the heat of the sun or that of a common stove may be used, but it will then of course be more difficult to regulate the degree of heat.

Treatment of Gonorrhœal Rheumatism.

The internal treatment of gonorrhœal rheumatism is generally unsatisfactory. Salicylate of soda, antipyrin, salol, and salophen have been used, but they often fail. Rendu according to Treatment, is of opinion that the treatment consists in treating the discharge itself. The gonococci must be destroyed at their seat of origin, where they always multiply and infect the organism generally. The best means is that of irritation with permanganate of potassium. according to Janet. According to Rendu, after two or three days of this treatment the joint affections quickly improve, the swelling, pain, and œdema subside, and a cure is effected. The treatment is the more effective the earlier in the disease it is commenced; but if the joints have been affected for a long time it often fails, and other means must be tried. In such obstinate cases Rendu has tried injection of the joints with a solution of 1 in 4000 perchloride of mercury. In very severe suppurating cases arthrotomy is the best treatment. If the joint has not long been immobile, there is little fear of ankylosis but stiffness and atrophy of muscles often occur which are best treated by massage, exercises, and the Faradic current.

Hysteria in Early Life.

A. A. Eshner, (Atlanta Med. and Surg. Jour.) says it seems not unreasonable to believe that hysteria depends essentially upon metabolic or nutritional changes in the cellular elements of the central nervous system, in consequence of which there may result alterations in function and changes in relation, whence arise the varied and protean symptoms of the developed disease. While perhaps not so uncommon in childhood as it appears to be, it is yet sufficiently so to warrant the report of a small group of cases by the author, illustrating some of the phases of the disease as it appears in early life, as well as some of the difficulties and doubts that at times attend its recognition. As to the causes, symptoms, course, and treatment of hysteria, these are much the same in children as in adults, except in so far as these are influenced by modifications dependent upon differences in mental and physical growth and development.

The Prevention of Cinchonism.

The editor of the "Therapeutic Gazette" says that within the last few years they have referred to the untoward effects produced by various drugs, and have called attention in particular to the disagreeable after-effects which often ensue when quinin is administered. With the more moderate of these effects nearly everyone is familiar, for the laity often prescribe quinin for themselves in such large doses that they speedily experience the tinnitus, or deafness and headache which full doses of this drug so readily produce. There are two ways in which these disagreeable symptoms may to a certain extent be modified by combining with the quinin other remedies. The oldest way, and the method which is perhaps resorted to most frequently, is the administration with each dose of quinin of five or ten grains of bromid of potassium or bromid of sodium, which seem, to a considerable ex ent, to modify the aural symptoms which we have mentioned. If the dose has been a very large one, and the patient is particularly susceptible to quinin, it may be well to give at the same time with the quinin a little fluid extract of ergot for its tonic effect upon the cerebral and meningeal blood-vessels. Another method for the prevention of cinchonism is that which has been suggested by Aubert within the last few months. He asserts that the administration of atropin in the dose of 1-250 to 1-150 of a grain with each dose of quinin greatly modifies the symptoms, and in those cases where the quinin was given for the relief of the neuralgia aided the quinin very materially in relieving the pain. It must be remembered, on the other hand, that in those who have a susceptibility to atropin, the dryness of the mouth and throat and the disordered vision which may ensue after this dose of the drug might prove more uncomfortable to the patient than if the quinin had been administered alone.

Iodide of Potassium in Metrorrhagia from Uterine Fibroma.

P. Boquet reports very good results from the use of iodide of potassium in the treatment of metrorrhagia connected with uterine fibroma. (Edinburgh Medical Journal.) Two years ago he was called to a woman, aged 47, with a large uterine fibroma which caused continual metrorrhagia, so that the patient had to spend most of her time in bed. There were evident marks of syphilis on various parts of her body, and she stated that she had been infected by a child whom she had nursed twenty years before; the disease had never been treated. On the hypothesis that the syphilis had something to do with the evolution of the fibroma, Boquet prescribed iodide of potassium, 2 g. a day the first week, this dose being increased by 1 g. weekly during three consecutive weeks, so that in the fourth week the woman was taking 5 g. daily; after this the dose was reduced to 2 g. a day. A fortnight after the beginning of the treatment the bleeding ceased, and soon the syphilitic lesions began to disappear. At a later period the iodide was discontinued, and soon afterwards the bleeding began again; the remedy was again administered but in smaller doses, and finally the patient was able to remain two, then three, and afterwards six months without taking the iodide and without any return of the metrorrhagia. Encouraged by this result he gave iodide of potassium in the same doses administered in the same way to four other women suffering from fibroma with metrorrhagia but absolutely free from syphilis. In all these cases the bleeding was stopped, pains ceased, and the size of the tumour was markedly diminished. Boquet suggests that iodide of potassium exerts a special effect on the genital organs of women, and he thinks that the drug might be tried not only in metrorrhagia connected with uterine fibroma, but also in hæmorrhagic metritis.

Chronic Hydrocephalus Treated by Intracranial Drainage.

At a recent meeting of the Clinical Society of London Dr. G. A. Sutherland read for himself and Mr. Watson Cheyne notes of the case of an infant, aged 6 months, who was suffering from congenital hydrocephalus and hereditary syphilis. (British Med. Journal.) No improvement had followed after three months of medical treatment, and the head was steadily increasing in size. The condition at the time of the operation was one of very marked hydrocephalus, the bones of the skull being soft and widely separated, and the vertex occupied by a large membranous space measuring 9 inches in its widest diameters. The operation consisted in making a small opening in the dura mater opposite the left lower angle of the anterior fontanelle and introducing a catgut drain, one extremity of which was passed between the brain and the dura mater for a distance of 1 inch, and the other pushed through the substance of the brain into the expanded lateral ventricle. A very small quantity of ventricular fluid escaped, the opening in the dura mater was completely closed with catgut sutures, and the scalp wound sewn up and dressed in the ordinary way. On the fifth day after the operation, when the dressings were removed for the first time, the wound was entirely healed. From the date of the operation there was a steady and uniform diminution in the size of the head without the occurrence of any bad symptoms, and within a few weeks the spaces between the cranial bones were entirely obliterated, and the anterior fontanelle was much smaller, depressed, and pulsating. Later, symptoms of basilar meningitis developed, and the infant died of that affection three months after the operation. At the necropsy the membranes at the base of the brain were thickened and adherent, and a considerable quantity of fluid was present in the subdural space. The brain was small and cystic in parts, but there was no distension of the ventricles. Reference was made to the work of Dr. Leonard Hill, whose experiments on the absorption of fluids from the subdural and subarachnoid space suggested the line of treatment which had been adopted. By establishing a permanent communication between the ventricles and subarachnoid space it was hoped that however much fluid was secreted in the ventricles it would be carried off at once by the veins, and in the absence of injurious pressure the brain would be left free to develop if it could. The result of the operation had shown that in hydrocephalus the excess of ventricular fluid could be removed by this method of intracranial or subdural drainage.

The Administration of Medicine to Children.

Dr. Charles West, in the "Practitioner," writes concerning the difficulties attending the administration of medicine to children. He alleges that these arise from two reasons, one being that the medical man prescribes medicine unpleasant in taste and smell, and the other that parents do not make obedience the keynote of their dealings with their young. The latter objection opens a somewhat wide range of speculation which cannot be readily set to rest, and, therefore, is not worth discussing, but the former, relating to unpleasant medicines, is one which merits the attention of the prescriber. Dr. West suggests a remedy. He thinks medicines should be given in small quantities and as free from flavour or smell as possible, while such abominations to the infant mind as bulky powders and sticky masses should be rigorously avoided. The best purges, he admits, are castor oil, senna, jalap, and scammony, and of these, as castor oil occupies the first place on the list, we presume he gives it the preference.

He says, moreover, that castor oil can be prepared in a very simple way, in a form which to all intents and purposes is tasteless. It is simply shaken up in a bottle with a wineglass of hot milk, well sweetened, and flavoured with cinnamon. This puts the otherwise objectionable oil in quite a pleasant light to the youngsters, and there will be no difficulty in securing its due acceptance.

The Use of Quinine as a Substitute for Ergot in Midwifery.

Dr. Owen Mackness read a paper on this subject at a recent meeting of the Edinburgh Obstetrical Society. (British Medical Journal).

Quinine had recently been largely used instead of ergot, but still by a very small percentage of practitioners. The disadvantages of ergot were: (1) Its preparations were very unreliable in potency and action; (2) it was apt to cause vomiting, difficult to keep, and if injected hypodermically caused pain, if not abscesses; (3) it caused "tetanic contraction of the uterine muscles, with occasional increases of violence; there was no complete relaxation between the spasms as in ordinary labor pains," (Lauder Brunton); the tetanic contraction was dangerous to the mother, and in a high degree to the child; asphyxiation was apt to occur; (4) it was said to cause hour-glass contractions of the uterus. The advantages of quinine were: it could be easily administered in pills, which kept for any length of time; it was thus tasteless; it hardly ever produced vomiting; its action was more certain than that of ergot in that there was no variability in its composition; it was easily soluble in the acid gastric juice, its effects were seen within twenty minutes; it did not produce tetanic contraction of the uterine muscle, but merely increased the strength of the "pains" and allowed of the natural periods of relaxation. It was specially of use in inertia pure and simple, where there was no obstruction or deviation from normal, or disproportion between passages and fœtus. In primiparæ it gave fresh tone to the exhausted uterine muscle, and it often obviated the necessity for forceps. Dr. Mackness was in the babit of using four-grain pills of the sulphate. Of these two were given, and if the pains did not increase sufficiently another pill was given in an hour, and yet another an hour later. It was rarely necessary to give the third dose, twelve grains being generally sufficient. Cinchonism was hardly ever produced. Three typical cases in which quinine was used successfully were referred to. For the arrest of hemorrhage ergot was useful, but was contraindicated in all cases of labor where ecbolic action was desired. For hemorrhage during labor quinine was of more service, inasmuch as it set up regular contraction. The tetanic contraction due to ergot was no doubt serviceable in *post partum* hemorrhage by compressing the gaping vessels. When abortion was threatened, where there was bleeding, no pain, os uteri closed, then ergot in small doses was of great use by bringing into play the hæmostatic action of the drug. In subinvolution after delivery ergot was of service, especially if there was hemorrhage. Dr. Mackness's conclusions were as follows: (1) Ergot is contraindicated in labor, but is useful in large doses in *post partum* hemorrhage. (2) Ergot is useful in repeated small doses in threatened abortion and in subinvolution. (3) For delay in labor due to exhaustion of the uterine muscle, eight grains of quinine followed by four grains in an hour, and the latter dose repeated an hour later if need were, should be given. This was not good treatment where the delay was due to obstructions in the passages, or deviations from the normal in the fœtus.

The Serum Diagnosis of Enteric Fever.

Levy and Gissler (Munich med. Woch) describe their method of carrying out Widal's test. The typhoid bouillon culture should not be older than ten to twelve hours; otherwise there is danger of pseudo-agglutination. The authors maintain that fluid serum should be used in preference to dry blood. An observation period of two hours is sufficient. In a typhoid epidemic the serum reaction gave a positive result in 105 out of 115 cases. The authors investigated these cases in such a way that one of them made the bacteriological examination and the other the clinical, and then they compared notes. All the 105 cases showed the clinical characteristics of enteric fever, whereas ten did not. When it is considered how difficult it is to exclude errors of diagnosis in an epidemic, the value of the test becomes obvious. Two cases were particularly instructive. The diagnosis lay between enteric and puerperal fevers. In the one case the patient was admitted after fourteen days illness, and Widal's test was positive. Besides a puerperal endometritis, the characteristic lesions of enteric fever were found after death. In the other case the patient was sent in with the diagnosis of enteric fever, but the reaction was negative. At the necropsy a puerperal endometritis was found, but no lesions of enteric fever. A table is appended showing the details of the various cases. In none of the genuine cases did the reaction fail. The serum reaction enabled them to distinguish between diseases with symptoms resembling enteric fever and the abortive forms of the disease itself. In ten of the eighteen cases it made the diagnosis possible in the first week; of the remaining eight, five were not enteric fever and three gave the reaction later. Of twenty-six examined in the second week of the illness, the reaction was positive in twenty-two, and the remaining four proved not to be typhoid. Of twenty-six in the third week, twenty-four were positive and the remaining two turned out not to be typhoid fever; sixteen examined in the fourth week, thirteen in the fifth, seven in the sixth, ten in the seventh, and five in the eighth, all gave positive results, and the disease presented the characteristics of enteric fever.

The Operative Surgery of Gastric Ulcer.*

Heydenreich (Sem. Med., Feb. 2, 1898) gives the indications for surgical interference in gastric ulcer: (1) In perforation it is absolutely necessary as early as possible before the perforation, and to wash out the abdomen. Since 1894 the mortality after operation has fallen to 52.94 per cent., and without operation the condition is almost necessarily fatal. (2) For stricture of the pylorus. In this condition it it is hard to distinguish obstruction from swelling of the tissues round the ulcer, or from pyloric spasm from true fibrous stricture. For the latter there are three possible operations: (*a*) Resection of the pylorus; (*b*) gastro-enterostomy; (*c*) pyloroplasty. Of these the first is the most dangerous, and has no advantages over the others, unless the ulcer can be excised with pylorus. Pyloroplasty is not applicable if the ulcer extends to the pylorus, or where the pylorus is adherent, and its walls have lost their softness. When there is a choice between the second and third methods, Miculicz prefers pyloroplasty. (3) Operation may be required for adhesions or abscesses in connection with the ulcer. These are mostly very hard to diagnose, but it must be remembered that in some cases of persistent pain exploratory laparotomy is justified. (4) For hæmatemesis. Since sudden death is the exception, and many cases recover with medical treatment, the propriety of operation is still doubtful. Hartmann's twelve cases gave eight deaths and four recoveries. The author believes the chief point to be the quantity of blood lost. For violent hemorrhage laparotomy has almost always failed. Sometimes the infiltration of the surrounding tissues has rendered excision of the ulcer or ligaturing the bleeding vessel impossible. Often the bleeding comes from a branch of the splenic artery, whose territory is very difficult to reach, and sometimes the ulcer is too small to be found. For slighter hemorrhages which become dangerous through repetition operation may be successful; usually pyloroplasty or more often gastro-enterostomy have been performed in such cases with a view to procuring rest of the stomach, and consequently of the ulcer and its healing. (5) This last consideration has led some to propose gastro-enterostomy for cases of uncomplicated gastric ulcer. The general death rate for all cases of gastric ulcer is 25 to 30 per cent., for gastro-enterostomy only 16.2 per cent., and therefore the operation has less danger than the disease. Another advantage of not waiting for complications is that the patient is in better health. At any rate cases which do not improve with medical treatment in a reasonable time should be treated surgically.

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*British Medical Journal Abstract.

Diarrhœas of Children.

Langford Symesa (Dublin Journal finds the more useful classification of these disorders to be: (1) The Dyspeptic, and (2) The Infective. In nearly every case is to be found the administration of some patent food, with perhaps milk in various stages of decomposition, from an apparatus impregnated with toxic germs, so that we can easily understand that fermentative changes are present in most instances. Dyspeptic diarrhea is often neglected until it has existed for a long time or has become alarming. It is produced by feeding which is either improper, excessive, irregular, or unwholesome, but fermentative changes from the toxic effects of bacterial organisms are present in most cases. Violent irritation may produce it, and one of the worst cases ever seen by the author originated in the inflammation of a vaccinated arm. The chief symptoms are restlessness, abdominal pain, frequent stools (grassy green, watery, often mucoid, always foul-smelling, sometime profuse, as ten a day for a child five years old), thirst, sunken eyes, cold skin, and a pursed expression to the mouth. There may be vomiting, convulsions, twitching of the hands, sour smell from the mouth, collapse with a depressed fontanelle. Chronic cases are sometimes supposed to have "consumptoin of the bowels." In these cases we have profound emaciation, frequent stools, which are very offensive and in which undigested food is passed with coagula of casein, fretfulness, œdema, pains and flatulence. There may be prolapsus recti. All the symptoms designated "spurious hydrocephalus" may be present before death. Infective diarrhœa has only been lately understood, but is now known to be microbic. The profound nervous prostration, out of proportion to the amount of diarrhea, and the deaths of many after all discharges have ceased, strongly point to a definite poison. The complaint sometimes rages as an epidemic. but practically never occurs in breast-fed children. Sterilized milk is a safeguard. It is rarely seen in country districts. Neglect, or deficiency of ventilation appears to be an important cause. The symptoms are remarkable and their severity appalling; the five most important are collapse and stupor, sudden vomiting, purging, thirst, and rapid wasting. Albuminuria is stated by Von Hofsten to be a characteristic symptom. The diagnosis can hardly be mistaken, Cerebral effusion may be simulated by a case now and then in the so-called "hydrocephaloid" condition, if it is suddenly sprung upon the practitioner in this state, but they are very distinct.

Does Pure Water Pay?

Prof. William B. Mason, of the Troy Polytechnic Institute, has lately published a book on water supplies, and in plainly holding up to view the costliness of obtaining a new water supply or modifying and altering the old one, he demonstrates that no community can afford to rest with anything short of pure water, known of all men to be such. He cites the evils to be expected from any of the water-borne diseases, but especially writes of typhoid fever from the cool, calculating standpoint of commercial loss. He says: The economic value of an individual is what it has cost his family, the community, or the State for his living, development and education; it is the loan which the individual has made from the social capital in order to reach the age when he can restore it by his labor."

It is difficult to compute the value of a man in dollars and cents and yet the attempt has heen made. Chadwick rated an English laborer at about $980, Faer estimated him $780; while a French soldier is reckoned at $1,200. Typhoid fever, nearly always a water-borne disease, chooses for its victims those in the prime of life, seldom attacking the very old or the very young, which has led able judges to give the valuation of $2,000 for a man in the prime of his vigor. Mr. Mason selects, as illustrative, a city of 100,000 people, such as Albany, N. Y., where the deaths from typhoid have averaged seventy-five for the last five years. Calling each man lost as worth $2,000, it means a direct loss pecuniarily of $150,000. Funerals range from $20 to $30, so taking a mean of $25 it adds to the amount of direct loss each year $1,875—making a total indirect loss of $141,875.

But this fever does not always kill. The mortality is reckoned at 10 per cent. of those attacked, and the average period of convalescence is reckoned at forty-three days. Assuming nine recoveries for one death, there are found 29,025 days lost by those who recover—over seventy-nine years; reckoning wages at $1.00 per day, there is a loss of $29,025. Nursing and doctors' bills are at least $25 per case, adding $16,-875 to the gross sum.

To sum up: Seventy-five deaths at $2,-000 each, $150,000; seventy-five funerals at $25 each, $1,875; loss in wages of convalescents, $29,025; nursing and doctors' bills, $6,875; total loss for one year by typhoid. $197,775. This is a heavy sum to be levied on one city by typhoid in one yar; the bare statement of the facts draws its own moral, and the sum would pay the interest on costly water works that could in no way be characterized as "death dealing."

Heart Complications in Diphtheria.

Cleon Melville Hibbard, in the Boston Medical and Surgical Journal, has a comprehensive article upon heart complications in diphtheria. The conclusions are as follows: (1) A rapid pulse rate in diphtheria is to be dreaded; death usually results when it exceeds 150. (2) A slow pulse—60 in children—is a sign often of serious heart trouble. (3) Irregularities in the pulse occur in about ten per cent of diphtheria cases and are generally significant of cardiac complications. (4) A systolic murmur at the apex is heard in about one case in ten, and its prognostic value depends upon the nature of the cause. (5) *A bruit de galop* in diphtheria is a most fatal sign. (6) After four weeks with no heart symptoms in diphtheria there is little probability of subsequent cardiac trouble in the convalescence. (7) All diphtheria patients who have tachycardia, bradycardia, irregular or weak pulse, a systolic murmur at the apex, vomiting, or any paralysis—especially palatal—should be kept in bed. (8) The most important element in the treatment consists of absolute rest in bed. (9) The vagus nerve in the fatal cases always had some evidence of degenerative changes. The weight of the heart was increased. (10) The cause of the death is usually cardiac thrombi, dilatation, or paralysis, produced probably by the toxin of the diphtheria bacillus.

A Novel Operation. Removal of Both Seminal Vesicles through the Back.

This operation was performed, so far as we know for the first time, on March 23, 1898, by Dr. Robert T. Morris. at the private Park Hospital, 132 East 16th Street, New York. The patient was 24 years of age. The vesicles were closed from gonorrhœal infection of long standing, and incapacitated the patient entirely from any active duty. The chief indication for operation was bowel obstruction due to a pelvic cellulitis, with pelvic peritonitis, very similar indeed to the symptoms of pyosalpinx in the female. Incision was made through the gluteus maximus exterior to the coccyx, above the anus, but avoiding the cutting of the fibres of the internal sphincter, and the coccyx was removed with scissors; the dissection continued until the seminal vesicles were found firmly adherent to the surrounding structures. With great difficulty the adhesions were broken off, the vesicles freed and removed by enucleation. The specimens were about four times their normal size and much disorganized from inflammation. The operation is novel, was designed by Dr. Morris, and great skill was displayed in its execution. The patient is making a good recovery.

The Mercurial Treatment of Syphilis. *

Schwimmer (Wien med. Presse, 1897, No. 44) while agreeing that removal of the primary sore can at best palliate and never cure the disease, recommends that the use of mercury should be begun before the onset of secondary symptoms. He states that of fifteen cases of severe early syphilis seen by him during the last three years not one had been mercurially treated. He deprecates any reliance being placed on the severity of the primary symptoms as a guide to the subsequent course of the disease, and holds that all cases should undergo the same medicinal treatment. He points out that the discovery of the organisms of the soft sore and of gonorrhœa has led to no improvement in the therapeutics of those disorders and considers that the possibility of a bacterial cause for syphilis should not interfere with its present empirical treatment. With regard to the duration of treatment, with which the question of permissibility of marriage is bound up, Schwimmer quotes two cases in which, after prolonged treatment and freedom from symptoms, patients were allowed to marry; no infection of the wives took place, and each had two healthy children. Nevertheless each developed eight years after infection further syphilitic mischief, in one case affecting the testicle, in the other the periosteum. He concludes that the most prolonged treatment (three years Fournier, five years Neisser) cannot absolutely protect against relapses. As such lengthy treatment is very depressing, both physically and morally, he considers two years enough but does not recommend marriage till the end of the third or fourth year.

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*Abtract from the British Medical Journal.

The Modern Child.

The Archives of Pediatrics in one of its leading editorials comments interestingly on this subject:

To the student of sociology, one of the most notable features of the past few decades is the growing attention bestowed upon children. The thought now devoted to them would amaze our ancestors of three generations ago. Child-study has become one of great importance. Thousands of men and women are being trained in scores of normal schools for the one purpose of instructing young, for the work of a teacher is now believed to be one demanding extensive and peculiar education. Volumes are written annually for children and of children, while journals and magazines of the same character have increased a hundred-fold. The children are apparently considered a far more important factor in every household than they were fifty years ago. It is at least a fact that they receive more attention and are brought into much greater prominence. The average child of to-day has a score of toys where his grandfather had one. Many children are overburdened with them, and are less happy than they would be with a smaller number. The most contented and quiet children that the physician sees in his rounds are certainly not those with the most playthings.

We are far from criticising the general tendency to bestow more attention upon children and more thought upon their education and training, but it cannot be denied that the matter in many families is carried to a very judicious extreme. Neither can it be denied that the general tendency is in the direction of bringing children into too great prominence, in making them the most important and first-to-be-considered members of the family, and in laying burdens upon them too great for their strength. These errors are undoubtedly greater in the cities and large towns where the high tension of life is felt by all sorts and conditions of men, by children and adults alike.

We have before referred to this subject in these pages, and have pointed out the error on the part of some parents, namely, a tendency to adopt the habit of too great *camaraderie* with their children, and the growing tendency to remove the barriers between childhood and age. This naturally results in the feeling that children should enjoy the same pleasures and indulge in the same pastimes as their elders. Such recreation is frequently of a character far too stimulating for the sensitive nervous organism of the child. The prevailing tendency of the times is certainly to overstimulation of children. This tendency pervades our whole educational system. It permeates juvenile literature, it is manifest in childish recreations, and has invaded the home. Such over-straining and stimulation of the nervous organism cannot fail to cause harmful effects during childhood, and frequently produce a neurasthenic and nervous temperament in later life.

The Duties of the Sick-Chamber,

When called to the bedside of a sick person the first thing to be done after an examination is to find out the leading characteristics of the individnal. If in his habits of life or in his ordinary relations he has shown marked likings or dislikes for any member of his family, or for any particular foods or drinks, or bed apparel, or arrangement of furniture in his room, these are things which are often of great importance. They may possibly be mere whims, but if so they are not infrequently of weight in the patient's mind. For instance, to place a sick man or boy in care of a nurse of his own sex might violate the person's idiosyncracy seriously. The relation of the bed to the points of compass, the bed clothing, its texture and colour, the shining in of the morning or the sunset light, may need to be taken into account. So far as these can be arranged to meet the fancy or gratify the desire of the patient they should be; for the reason that in many cases of illness cerebral congestion is an attending condition, and when this is the case morbid impressions are taken on. The organs of sight may be excited, exalted, or diminished in their activity, and all things have an unnatural look, so that any unfamiliar or distasteful object might affect the patient's condition seriously.

Any person so sick as to be compelled to go to bed, and remain there, should have the most comfortable conditions that his home can afford. Many times have we been led to see how conventional and false are the prevailing notions in well-to-do families as to what the sick need and should have for their advantage. You must have an eye to this. Let it be a matter of importance to you how your patient is conditioned. Insist on his always having the best surroundings possible, and put these down as essential to his recovery.

All sick persons should have sunlight let into their rooms if possible. It should be unshaded or shaded, as the case may demand.

Some of the Dangers Surrounding the Dairy.

Brush (New York Medical News,) says in many of the dairies supplying milk for food nearly everything is totally wrong or not quite right enough to produce a wholesome product. It is well known that the dairy cow is subject to numerous grave diseases, and it is also an established fact that any disease in the cow affects her milk perniciously. At the present time health authorities appear to recognize nothing but tuberculosis as the sum total of all the disease and danger contained in the improperly managed dairy. The sources of possible contamination which surround the milk after it is drawn from the cow are many and serious on the majority of dairy farms. I believe that when we are able to exclude the diseases which arise from milk contamination in the dairy, outside the cow, we will be better able to trace some of the epidemics which find origin in the animal herself. Many of the diseases of infancy may be rendered much less frequent or even altogether eradicated by proper attention to the hygiene of the dairy. There are many other animals about the dairy besides the cow which menace the dairy product, often as seriously as a diseased cow herself. Horses, dogs, cats, rats, mice, and fowls undoubtedly are often the direct means of infecting milk, and thus passing contagion to the human race. The dairyman, as a rule, has a family of children who are often attacked with the grave diseases of childhood. The milking vessels are frequently washed in the house, and not unusually there is a close connection between the house and the dairy, and sometimes the living-house itself is used as a dairy-house. Those who milk the cows are not always free from disease; often we see the milker with hands that are cracked or sore. I haxe myself seen milkers spit upon their hands to wet the teats before they began milking, and then, when there was a certain quantity of milk in the pail, dip their dirty hands into it and keep the teats dripping wet during the whole process of milking. In these days of bottled milk the danger of spreading contagion is vastly increased. Bottles which go into rooms where children are suffering from any of the contagious diseases must be a source of danger if they are not subsequently sterilized. We ought to insist that all milk containers be sterilized with steam under pressure after each usage. When the dangerous elements are recognized and eliminated from the dairy, then it only requires that the cows be healthy, properly fed and cared for, in order that we may have milk fit to drink and to feed to the baby, without the intervention of the chemist or any of the prevailing laboratory methods, which at the best are only questionable makeshifts.

Pruritus Vulvæ.

Herman (British Medical Journal) makes the following division of cases of pruritis vulvæ:

1. Adventitious, due to dirt, pediculi, worms, or pessaries.

2. Skin diseases—eczema, herpes, or furuncle, follicular, urticariat. and diabetic dermatitis.

3. Irritating discharges, such as gonorrhea, cancer senile endometritis; also cases in which no visible discharge is apparent.

4. Venous congestion, due to heart, liver and lung diseases.

5. Nervous affections.

For each division the following treatment is recommended:

1. White precipitate ointment for pediculi. For the other causes, absolute cleanliness and changing of the material of pessaries.

2. For eczema (usually affecting fat, elderly women and those pregnant), when due to pruritic organisms, warm hip baths, with liquor carboni detergens added, and the parts powdered with boric acid. When due to diabetes, general treatment. Herpes zoster did not respond to treatment. For follicular pruritus it is recommended to squeeze out the contents of follicles and apply corrosive sublimate, 1 to 2000.

3. Antiseptic and sedative douches, and sedative dusting powders on the vulva, as a saturated solution of borax and solution of boric acid. In case of failure with these try 1 to 7 solution of carbolic acid.

4. The same local treatment as for class with general eonstitutional treatment.

5. Pruritis, when occurring in aged women, is frequently a symptom of degenerate changes, and treatment usually fails.

Bicycle Heart.

Several well-known French cyclists have lately, it is said, been rejected as unfit for military service by reason of hypertrophy and other diseases of the heart. (British Med. Journal.) A contemporary, representing no doubt lay opinion, professes astonishment at this result. But medical men will be rather surprised that the numbers are so small. There must be few of us who have not seen the ill effects of over-exertion on a bicycle. The commonest is palpitation and temporary dilatation; but even this is sometimes very difficult to cure. In a case which occurred recently, a lady, ordered for a fortnight's change of air after influenza, chose to spend it in bicycling about fifty miles a day. As a result, she has ever since that time—now nine months ago—had a pulse which on the least exertion rises to 120, though she has not ridden again. That temporary dilatation occurs is enough to show the great strain upon the heart, and it is an added danger that the sense of fatigue in the limbs is so slight. The rider is thus robbed of the warning to which he is accustomed to attend, and repeats or continues the strain upon the heart. As in other similar cases, the effect is to render that dilatation permanent which was at first but temporary, and to cause an increase in the muscle of the heart by repeated exertion. The heart produced is of large dimensions and of thick walls—a condition which may, perhaps, give little uneasiness to its owner, but which a medical man will view with considerable distrust and apprehension. Weakly and elderly people cannot be too often told that no exercise is more easily abused, though, if taken in sensible measure, few are more healthful or enjoyable.

The Early Treatment of Syphilis.

Neumann holds that no remedy can be depended upon to ward off the onset of constitutional symptoms in syphilis; the most that results is their temporary postponement. (Edinburgh Med. Journal.) He admits, however, that exceptionally abortive treatment appears to be successful. Mercury and iodine are specific antisyphilitic remedies which do not destroy the cause of syphilis, though they control its products. No other remedy is yet known which acts directly on the cause of syphilis, whatever that may be, and of this many proofs can be adduced. Thus the abortive treatment would, if these remedies acted on the cause of syphilis, utterly destroy it before it could take possession of the whole organism. But of 100 cases thus treated in Neumann's clinic, not one remained free from secondary symptoms. Again saturation of the organism with mercury or iodine does not prevent relapses, which have occurred up to fifty-five years after infection. Late syphilitic manifestations appear most frequently on the very sites of the early lesions, which would be impossible if the cause of the disease had been destroyed. *Per contra* mercury and iodide are often ineffectual in well-marked syphilis. By whatever remedies and in whatever manner treated from 6 to 22 per cent. of syphilitics remain uncured, that is, develop tertiary symptoms. From these considerations Neumann concludes that the symptomatic treatment of syphilis is the sole rational one, and that it acts by establishing a temporary or permanent immunity to the ever-present cause of the disease. The "chronic intermittent" treatment of Fournier referred to above is not to be recommended, as the results obtained by it are no better than by the symptomatic method.

Widal's Serum Diagnosis of Typhoid Fever.

Drs. Musser and Swan (Journal of Am. Med. Association) have made examinations of one hundred cases of typhoid fever. Of these, thirty-five were suffering from undoubted typhoid; the reaction was present in all except four cases. Twenty-four observations were made on the blood of patients convalescent from typhoid fever. The reaction was present in eighteen cases, imperfect in four and absent in three. Seven examinations were made from patients who had typhoid at some previous time. Thirty-five examinations of blood from patients suffering from other diseases were also made. The reaction was absent in every case. From this evidence, which is fully tabulated, the author draws the following conclusions:

1. The age or sex of the patient does not make any difference in the character of the reactions.

2. The reaction may be obtained from the blood of cases of typhoid fever during the course of the disease, and may be found as early as the seventh day. In some cases it is absent at the seventh day and in other cases it is not fully developed until later in the course of the disease. In no case was it found earlier than the seventh day. In another case it was not perfectly developed on the fourteenth day.

3. The reaction disappears at a varying time after the cessation of the disease. The bacilli may fail to agglutinate as early as

the thirty-eighth day. The reaction may be perfect as long as ten years.

4. The reaction can not be obtained from the blood taken from patients suffering from diseases other than typhoid fever, unless there has been a previous attack of the latter disease. Even if there has been a previous attack of typhoid fever the reactive property of the blood may have disappeared.

5. The test is valuable in diagnosing between typhoid fever and other diseases presenting a so-called "typhoid state." This is particularly the case in tuberculous diseases, in catarrhal fever, and in pneumonia.

6. From the observation of the one hundred cases it would seem that the reaction was accurate and that it could be relied on. It presents advantages over former clinical methods in doubtful cases.

The Vagus Origin of Asthma and its Treatment.

Dr. Kingscote at a recent meeting of the Medical Society of London, observed that science had so far shed no light on the causation of the symptoms collectively described as spasmodic asthma. [British Medical Journal]. Asthma was just as much a symptom as headache or cough and not a disease. Asthma was not only comparatively common and superlatively distressing, but was peculiarly and proverbially intractable. He assumed that the origin of asthma was to be found in the irritation of one or several of the many ramifications of the vagi, though there was only known one means of experimentally producing asthma —namely, by stimulating the proximal end of the divided vagus. He admitted that there remained many obscure cases whose origin was unascertainable. In treating chronic heart lesions he had observed that some of the patients suffered from asthma. He had observed moreover that it was precisely those cases in which there was no ascertainable cause for the asthma that the patients got well, and that such patients invariably had a deep seated dilatation of the heart, and that the improvement in the asthma marched with the reduction of the cardiac dilatation. This suggested to him that the amount of space taken up in the thorax by the enlarged heart might, if properly studied, serve to explain many obscure symptoms as the direct effects of such pressure. He pointed out that dilatation of the heart to the size of a football, a by no means uncommon condition, constituted a heavy tumor which would exert considerable pressure on the structures lying behind it. The vagi passed behind the heart, and lay in close proximity with the bony spine, so that the heavy heart would press heavily on their main trunks and hammer the nerves as though on an anvil. Dr. Kingscote read brief notes of ten cases of asthma of obscure origin in which relief had followed treatment directed to the reduction of the size of the heart. Dr. Grœdel, of Nauheim, had related to him similar instances of improvement in cases of asthma and a reduction of the concomitant emphysema with the Nauheim treatment, especially when the asthma was cardiac. He pointed out that ordinary percussion was of little or no value in these cases in making out the actual size of the heart. Moreover, if the dilatation were very great the heart flopped over on either side of the bony spine and thereby assumed a hollow conformation immediately over it, by which means perhaps the vagi escaped pressure. This would explain why these cases were not more frequently met with. By treatment carried out on these lines it became possible to give a favorable prognosis even in the most stubborn cases, provided one could make out the seat of vagus irritation. His treatment consisted of a considerable modification of the Schott treatment combined with the inhalation of free oxygen twice daily in those cases which were due to cardiac dilatation. He insisted on the fact that he was not advocating a panacea for asthma, but only a method of treatment which might relieve when all other methods had failed.

The Nature of Scurvy Rickets.

Otto Nægeli [British Medical Journal] records a careful examination of the tissues in an exceptionally well marked example of this affection, occurring in an artificially fed child aged eleven months; only three previous cases appear to have been so thoroughly investigated. The signs of rickets were extremely slight, and the author considers that they might well be diminished as secondary. Dismissing the infective and rachitic theories of the origin of the disease, he regards it as a specific chronic general affection of small children consequent upon imperfect nutrition. It is characterised by general changes in the growing organism, especially in the blood and bones. When this condition has reached a certain height a hemorrhagic diathesis supervenes, no doubt in consequence of the constitutional debility and the well marked clinical picture of the disease is hence evoked. The hæmorrhages occur in single attacks spread over a considerable period; they are first seen in the region of the bony changes, and particularly in the calcifying border of the epiphyseal line and in the nucleus of ossification of the epiphysis. The disease has no more to do with syphilis than with bacillary infection or rickets. Whether it can be grouped under the heading of infantile scurvy cannot be stated with certainty, but probably it is not to be so classified. The true nature of the idiopathic affection under consideration cannot be stated without further histological investigations.

The Habitual Drunkard Question.

The New York Medical Recorder in one of its recent editorials brings out clearly several interesting points regarding this question. In part it says:

The excessive consumption of alcohol is a subject that is now greatly exercising the minds of temperate people in some of the European countries. It is felt that the time has come when steps should be taken to prevent as far as is possible the lamentable effects that the abuse of alcohol is exerting on the health of the inhabitants. It is asserted that in France in particular the drinking habit is absolutely sapping the strength and vigor of the nation. The people of Great Britain have long had the somewhat invidious distinction of being more addicted to strong drink than those of any other country. From the latest statistics published on the matter, however, the fact is gathered that France now heads the list in regard to the consumption per capita of alcoholic beverages. The Germans have ever been and are still the largest beer drinkers. England comes next, and then this country and France. As may be naturally conjectured, Germany, France, Italy, and Spain, the most important of the grape growing lands, are the largest consumers of wine, while the United States and England are the smallest. Of all peoples the French, with the possible exception of the Danes, imbibe the largest quantity of spirits. It is satisfactory to note that here the consumption of both spirits and wine has shown an appreciable decrease. In his annual alcoholic budget to the London Times, Dr. Burns recently estimated the drink bill of the United Kingdom for the year 1897, in round numbers, at $760,000,000, an increae over the preceding year of about $16,500,000. In face of this condition of things it has been decided to take vigorous measures to protect, at least to a certain extent, the habitual drunkard from himself. The inebriate legislation committee of the British Medical Association has issued a circular strongly advocating certain reforms in the existing laws regulating the treatment of the drunkard. The points to which it is considered legislation should have particular regard are: (1) power to substitute curative and reformative treatment of criminal inebriate offenders for their existing ineffective imprisonment in jail; (2) power to seclude non-criminal habitual drunkards, with due regard to the "liberty of the subject," in special curative institutions; (3) curative seclusion at the public charge for poor, habitual drunkards. A bill embodying these proposals has been introduced into the English house of commons and has been favorably received. It may be mentioned that at the back of this movement are the 15,000 medical men belonging to the British Medical Association.

That habitual inebriety is a mental and physical disease is now generally conceded; in fact, those who have made a study of the subject confidently assert that such is the case. If this, then, be so, it appears irrational, in addition to being decidedly hard on the drunkard, that he should be punished for his misfortune. Though men are not to be made sober by act of Parliament, judicious laws may assist them to overcome their failing, and therefore it seems that the bill now before the British legislature is a step in the right direction. In France the necessity of checking the widespread inebriety is recognised by all those who have the welfare of their nation at heart. Dubisson says that, while the population of Normandy has during the present century decreased by one-third, the consumption of ardent spirits has increased enormously. The mean duration of life has been reduced by more than half. Insanity formerly unknown is now fearfully prevalent; crimes of violence are rife; and stillbirths, rickets, scrofula, and congenital syphilis increase year by year. The same tale is told by physicians in all parts of the country. Public Health says:

"The information thus elicited points to a grave state of matters in France, but the efforts of the medical profession to arrive at the truth and enlighten public opinion, are a hopeful augury of success in what Dr. Laborde calls 'the struggle against the true enemy.' Many remedies have been suggested as a means of bringing about a change for the better, the most sweeping of which is, that the French government shall have the monopoly of the manufacture of stimulating beverages, so as to insure their purity. On the whole, notwithstanding the fact that France and England and one or two of the other European nations have retrograded, there has been a marked decline in the consumption of alcohol throughout the world. This has been especially the case in America, where the decrease since 1888 amounts to about 30 per cent. Without a doubt, the most important phase of the drinking question, at any rate to the medical profession, is to discover the best method of treating the habitual drunkard.

The Diagnosis of Malignant Disease of the Pleura from the Character of the Exudate.

Warthin (Med. News) says that, if we can judge from the literature on the subject, but few careful examinations have been reported of the cellular constituents of the exudate in cases where malignant tumors of the pleura and peritoneum were present, although much has been done with the chemistry of these fluids. He reports a case where the diagnosis of a spindle-cell sarcoma of the pleura was correctly made before death from the aspirated fluid. He says that from a histological study of the sediment of many cases of effusion into the peritoneal, pleural and pericardial cavities, the following points seem worthy of emphasis:

(1) In all cases of this kind where fluid can be obtained by exploratory puncture, cover-glass preparations should be made by fixing in alcohol and ether immediately after the withdrawal of the fluid from the body in order that the mitoses may be preserved.

(2) In the early stages of simple pleurisy the sediment contains endothelial cells and fibroblasts. The endothelial cells may be dequamated in large pieces.

(3) In fibrinous pleurisy, tuberculous or septic, the sediment contains, in addition to endothelial cells, numerous fibroblastic forms. In later stages, when adhesions are forming, the endothelial cells may be entirely absent, and only fibroblasts be found.

(4) In the diagnosis of sarcoma of serous cavities, the character and number of the cells and the presence of numerous mitoses are the points upon which it must be based. It is, of course, evident that the quickly growing and soft forms of sarcomata are the ones most apt to lead to the presence of cells in the fluid. The tendency of all sarcomata to break down after reaching a certain growth makes it extremely likely that in most cases free cells will be found. The diagnosis of the spindle-celled sarcoma is easy, from the occurrence of large numbers of spindle cells of similar size and shape, showing fewer branching processes than fibroblasts, and containing more mitoses.

In the round-cell forms, the tumor cells are to be distinguished from the endothelial cells by their size, character of nucleus, and the relation of the nucleus to the protoplasm. The presence of mitotic forms will again be the most important point; in the small round cell sarcoma, these are not so easily seen. The greatest difficulty will be in the differentiation of the cells of a polymorphoused celled sarcoma from the fibroplastic forms found in fibrinous exudates. Aside from the general character of cell and nucleus, the presence of division forms must in all cases be looked upon as the most important point.

In conclusion, therefore, the presence of numerous cell-division forms in the cells of the sediment of serous exudates may be taken as strong (perhaps conclusive) evidence that the effusion is due to the presence of a new growth, inasmuch as mitoses are but rarely found in the cells of purely inflammatory exudates.

Angina Pectoris: Its Relation to Dilatation of the Heart.

Musser (American Journal of the Medical Sciences,) says: (1) When dilatation of the heart supervenes in a patient the subject of an attack or attacks of angina pectoris the subjective symptoms may subside; at the same time the physical type of the individual changes. (2) Angina pectoris may occur in a patient who has had dilatation of the heart when the organic condition (dilatation) is removed by treatment. (3) True angina, when it occurs in dilatation of the heart, admits of a prognosis more favorable than when it occurs with other mural conditions, as myocarditis or hypertrophy, without dilatation. (4) Grave cases of dilatation of the heart, conversely to the above, may be looked upon as amenable to successful treatment if the patient should have paroxysms of true angina pectoris. (5) In the treatment of angina pectoris digitalis is of doubtful value, not to be given unless there is an excess of dilatation. (6) The pain of angina appears to be due to increased intraventricular pressure, although other causes are no doubt operative.

Sanmetto an Invaluable Addition to our Materia Medica.

It gives me pleasure to state that Sanmetto at my hands has proven all that its manufacturers claim for it. I consider it an invaluable addition to our materia medica. SCHUYLER C. GRAVES, M. D.,
Dean, and Professor of the Principles of Surgery and Clinical Surgery, and Professor of Abdominal Surgery, in the Grand Rapids Medical College.
Grand Rapids, Mich.

Acute Primary Myositis.

Dr. Lewy [Archives of Pediatrics].

Acute inflammatory affections of the muscles, other than trichinosis, have been but little studied, and but little is known about them. The author reports four cases of acute myositis occurring in adults.

The first case was that of a twenty-four year old girl, who after a few indefinite prodromal symptoms, developed a swelling of the muscles, together with an iruption of the skin. The eruption disappeared and was followed by purpura, which lasted three months. The muscular swelling appeared in various portions of the body, and was very painful; a moderate degree of fever was present a greater part of the time. The swelling disappeared in a few months and was followed by a slight degree of atrophy of a degenerative character with contractions. Early in the disease there was ulceration of the gums. The entire duration of the disease was six months.

The second case was the mother of the foregoing patient, a fairly healthy woman, 65 years of age. The onset of the case was with fever, diarrhœa, vomiting and purpura. These symptoms were followed by painful swellings of the muscles of the legs. No other portion of the body was involved. The mucous membrane remained healthy. During the second month of the illness, vomiting and headache developed, and was followed by acute hemorrhagic nephritis. The disease lasted several months, the patient ultimately making a good recovery.

The third case was the seventy year old husband of the second patient. He became ill the same time as his wife. He had fever, and large purpuric areas developed on the legs. He was well in eight days.

The above cases, occurring in different members of one family, would make it appear that acute myositis is a disease of infective origin.

To Prevent Scarring.

Dr. W. F. Waugh writes to The Alkaloidal Clinic as follows:

A morphine victim and cocaine fiend recently came into the Hyde Park Sanatorium with his arms and shoulders so covered with open ulcers that from the wrist to the neck there was not a particle of skin showing white. The ulcers were excavated, about a quarter of an inch in depth and discharging freely. These sores are common to cocaine habitues. who cultivate them in order to have an excuse for the use of that drug.

It was evident from the depth of the holes that considerable scarring was inevitable, and the problem presenting itself was how to make the deformity as inconspicuous as possible. Unguentine has been recommended as especially preventive of scarring and I determined to give it a trial. The arms were cleaned and Unguentine applied liberally. From the quantity used I am inclined to believe the Norwich pharmacal Company will declare an extra dividend this year. The ulcers healed rapidly, filling up from the bottom with exuberant granulations that soon projected above the surface. The pain was soon relieved, and even when the cocaine was withdrawn, the customary hyperæsthesia only showed itself in the form of itching.

Of course some scarring was inevitable; but my impression at present is that there will be surprisingly little, considering the hundreds of deep ulcers crowded so closely together. The rapidity with which these have healed, not one being open in six weeks from the beginning of treatment, is noteworthy. And I am satisfied that they would all have been healed within a month if the patient had let them alone. But, as he remarked, "what was he to do for an excuse when all the sores were healed?"

Tuberculous Bone Disease. Proper Surgical Treatment.

The summary of an article upon this subject by Horace Tracy Cabot (Boston Medical and Surgical Journal) is as follows:

(1) Many observations prove that tuberculous disease of the bones and joints is caused by the tubercle bacillus. (2) Injuries of moderate severity favor the production of the disease. (3) In the bones the disease begins in the epiphysis, and is more extensive than appears on gross examination. Hence in operations for removal of the disease a considerable margin of apparently healthy bone must be removed. (4) Tuberculosis of the joints is generally, if not always, secondary to tuberculous disease in the epiphysis of an adjacent bone. (5) Abscess formation is due to extension of the tubercular process to the soft parts. The contents and wall of the tubercular abscess are different from those of infectious abscesses. Partial removal of the abscess wall is harmful. (6) Repair is caused by the formation of fibrous tissue, which replaces and partly encapsulates the tubercular tissue. Repair may be incomplete. Fibrous tissue may produce fibrous ankylosis, or the tissue may become ossified and lead to bony ankylosis. (7) Paraplegia in Pott's disease is rarely due to direct bony pressure. Usually the pressure is caused by tubercular peripachymeningitis. Rarely the pressure causes degeneration of the cord.

Potassium Nitrate as a Heart Tonic.

It is a well known fact that saltpeter favors diuresis by stimulating the renal function; but this salt has one more important action, viz., that of influencing the heart directly in virtue of its chemical nature, being a salt of potassium. Dr. J. V. Krivonogov, a Russian practitioner, has made successful use of this property of saltpeter in the treatment of deficient compensation in his cardiac cases.

He found that this salt exerted a favorable influence in daily doses of four grams, in all cases of heart disease having culminated in a state of hyposystole, whether valvular or myocardiac in their nature, but more markedly so in the latter class of cases, as also in arteriosclerosis. In such cases, the potassium nitrate acts by restoring the energy of the contractions of the heart, by increasing arterial tension and diuresis. by diminishing the dyspnœa, by reducing the heart-dullness, by clearing away the œdema, as well as all phenomena of hypostasis in the lungs, liver, and kidneys. This action begins to manifest itself about the end of the first week of treatment as a rule, but sometimes even on the second or third day.

The drug is always well tolerated and in particular never accumulates in the system. Its use may therefore be continued for a whole month without the slightest inconvenience. In a few cases potassium nitrate sometimes causes a little diarrhœa, when first administered, but the diarrhea soon stops of itself.

Value of Blood Examination in Pneumonia.

The Journal of Practical Medicine for January, 1898, says:

(1) The diplococcus has been found in a certain number of cases; (2) Coagulation is very rapid; (3) Specific gravity is high in pneumonic children, and decreases after resolution sets in; (4) During the height of fever, red blood corpuscles are normal—post febrile anemia of moderate degree may occur, that may be greater in cases in which jaundice occurs; (5) Leucocytes are increased more or less—the leucocytosis may occur as early as the initial chill—the relation in temperature and leucocytes curves do not correspond exactly, but no decrease in leucocytes occurs at pseudo crisis, the reverse may take place; (6) The number of leucocytes is regarded by different authorities as [*a*] dependent on extent of lung involvement, or [*b*] virulence of organism and power os resistance. Cabot makes the following classification: 1. Mild infection, vigorous reaction, marked leucocytosis; 2. Severe or moderate infection, vigorous reaction, marked leucocytosis; 3. Severe infection, feeble reaction, no leucocytosis; (7) The prognosis is more grave in cases with no increase in the white cells; (8) Leucocytosis is a valuable diagnostic point in "central pneumonias," definitely excluding typhoid fever, malaria, and uncomplicated influenza; (9) Glycogen has been found in the blood of many pneumonia patients.

Incontinence of Urine in Children.

Incontinence of urine, says Dr. J. A. Coutts (Treatment,) may be associated with many and varied morbid conditions, in which it plays a very unimportant part. In some instances it may be the first symptom to call attention to such serious disorders as diabetes, calculus, hydronephrosis, and others. In nocturnal epilepsy, incontinence of urine may furnish the only evidence of past attacks.

In infancy, incontinence of urine is physiological and is due to the urinary reflex being as yet not under the control of the brain. Its persistency beyond infancy is probably owing to imperfection of control unless it be referable to bad habits and poor training.

In treatment, the ordinary routine practice of awakening the child at stated intervals to miturate is mentioned and commended. This simple procedure will cure the vast majority of cases. In addition to the last, restricting the liquids in the child's dietary during the latter hours of the day seems credible to all.

However, in obstinate cases, if on examination the urine presents a high specific gravity and a high degree of acidity, then instead of limiting the liquids, the author advises that trial be made of encouraging the child to drink freely toward the end of the day. In a few cases by this reversal of the common practice signal success has been scored.

Of drug treatment belladonna takes first rank. But that belladonna often fails is admitted by all. Some of these failures doubtless arise from the method commonly pursued by giving the drug in divided doses throughout the day. A much more efficient plan is to give one single dose in the evening, and to increase this gradually every four or five days. In this way a large single dose can be gradually worken up to, and if the incontinence ceases, can be gradually lessened until the drug is finally abandoned. Belladonna cannot be fairly said to have failed till this method has been tried. Of other drugs the author ranks lycopodium first. While belladonna acts by paralyzing the detrusive muscular fibers of the bladder, lycopodium is stated to have a more selective sedative action on the vesical mucous membrane. The author claims lycopodium was successful in numerous instances where belladonna has entirely failed. The method advised is to give twenty drops of the tincture three times a day to a small child and work up gradually until doses of a dram are given at the corresponding times. Lycopodium has been claimed by some as almost a specific in incontinence of urine, but while it is not that, it is certainly deserving of more extensive trial.

Bromide of potassium is mentioned as being of benefit in those cases in which the act of micturition ensues when waking is imminent or actually takes place. Here the beneficial action lies no doubt in its hypnotic effect rather than in any other action it may have on the nervous system. Strychnine is useful when the incontinence is accompanied with anemia, lassitude, and other departures from the normal health. Then a combination of iron and strychnine is of service.

Of other drugs, such as opium, chloral, etc., the author pleads ignorance.

When drugs fail there are still other measures that may prove of service in obstinate cases. It has been noticed that in many instances the child retains his urine while lying asleep on his side, but that as soon as he turns upon his back emission of urine takes place. The child can be prevented from turning on his back by fixing an ordinary bobbin over the lower spine by means of strapping. With this arrangement, whenever the child attempts to turn on his back the bobbin either wakes him up or else he turns to his former position on his side. In either case the urine is retained in most instances.

Circumcision in incontinence of urine, withouth phimosis, is uncalled for.

Rupture of Aortic Aneurism into the Bronchus.

At a meeting of the Edinburgh Medico-Chirurgical Society, held on January 19th, Dr. Bruce showed a specimen of great interest and rarity—the rupture of an aortic aneurism into the bronchus. (Lancet.)

The aneurism occupied the transverse part of the aorta and the first part of the descending aorta. There was a small secondary sac also, which was directed toward and into the left bronchus, compressing it entirely. In the corresponding lung a condition of aneurism phthisis was set up. The lung was completely consolidated and contained many small caseous nodules. There was also complete pleural adhesion. The patient had been much exposed, and on admission presented the symptoms of acute pneumonia; his temperature was high; the lung was extremely dull below, and presented the Skodaic note at the apex. The patient's temperature remained irregular, but he was thought to be improving; when coughing, he was seized with bleeding and almost immediately died. The diagnosis was rendered obscure by there being no displacement of the heart and no abnormal heart sounds.

The Treatment of Intussusception.

D'Arcy Powers says that Intussusception is a condition which brooks no delay in its treatment, for something must always be done at once, except perhaps in those slight cases which are indistinguishable from severe colic. In all doubtful cases pugatives should be completely withheld. The routine treatment is to chloroform the patient and steadily to fill his large intestine with hot salt water solution under a hydrostatic pressure of not more than three feet in a child, the fluid being allowed to remain in the intestine at least ten minutes. (The salt solution is made by putting rather more than a teaspoonful of salt in a pint of water at 100 deg. F.) The earlier the irrigation is made the better the result, but this method should not be adopted in enteric intussusceptions, in cases where the symptoms are very acute or in those where the absence of signs and symptoms with a subnormal temperature leads the surgeon to suspect that the intestine is becoming gangrenous. In these cases and when an intussusception is not reduced after irrigation has twice been tried, and when after reduction the intussusception has thrice returned, the abdomen must be opened. The surgeon must then be prepared to deal effectively with the condition he may find by such operative means as he can carry out with the least amount of shock and in shortest space of time compatible with the safety of the patient. This will be ensured if he uses the method he is most familiar with.

Dr. S. C. Martin, Professor of Dermatology and Hygiene, Barnes Medical College, St. Louis, Mo., writes:

After having tested Hagee's Cordial Cod-liver Oil Comp. in my practice for a number of years, the results have been so uniformly gratifying that I now rarely prescribe any other cod-liver oil preparation. The points in its favor are: 1st, the desired ingredients; 2d, their combination in a palatable and assimilable form, which insures a sufficiently prolonged use to produce substantial results.

The Treatment of Laryngeal Phthisis.

Dr. T. Morris Murry believed that the Krause operation was restricted too much; that even in far advanced cases we can often give ease, instead of leaving the patient to suffer. One should not be afraid to go deeply in the tissues, as the patient will bear it well. There is a great diversity of opinion in regard to the usefulness of the operation in the advanced cases. Herylg suggests the following conditions as indications for the operation: (1) Tubercular tumors of the epiglottis. (2) Circumscribed, chronic, tumor-like infiltrations of the posterior wall of the larynx which show little inclination to break down. (3) Chronic tumors resting on an inflamed base surrounded with proliferating growths which resist other treatment. (4) Partial disease of the larynx, even when the epiglottis, false cords, and lateral ligaments are affected. He advises against operation: (1) In advanced phthisis of the lungs with hectic and wasting. (2) In diffuse miliary tubercle of the larynx and pharynx. (3) In all cachectic conditions. (4) In severe stenosis of the larynx caused by inflammatory swelling. In these cases he recommends tracheotomy. Gleitsman advises curetting: (1) In primary tubercular disease without lung complications. (2) In cases in which concomitant lung disease is either incipient or stopped short of softening. (3) In circumscribed ulcerations and infiltrations. (4) In dens, hard swelling of the arytenoid region, ventricular bands and posterior wall. (5) In advanced stages of lung disease, with distress and dysphagia from arytenoid infiltration. The cases in which he considers it ill advised are: (1) In advanced pulmonary disease with hectic. (2) In disseminated tubercular disease of the larynx, in which there is little area of healthy tissue. (3) In severe infiltration producing much stenosis (when tracheotomy is indicated). In infiltrations of the epiglottis and arytenoid regions, Gleitsman recommends the galvano-cautery, which he follows with lactic acid. Lactic acid still remains the best local application even if curetting is not resorted to. Cadier considers creasote and vaseline of greater service. Shurlev uses equal parts of formate of sodium and starch by insufflation, or a spray of 5 to 10 per cent. of sodium or ammonium formate, with good results. Lingmaid reports good results from a 20 per cent. solution of menthol and oil from iodoform. Spengler advises parachlorphenol as a germicide, and for its soothing properties. Hedderich also says this remedy has great effect in relieving dysphagia. Zinn also recommends parachlorphenol in 10 to 20 per cent solution with glycerin, and states that tuberculous ulcerations can be healed by this application alone. Ruaunt reports remarkable success from the application of sulphorcinate of phenol (a solution of phenol in sulphorcinate of sodium). Making applications of a 50 per cent. solution, he states, causes the infiltrations to undergo sclerosis and heal without a cicatrix in from four to six weeks. Heryng reports favorable results from the use of this application, denying, however, its efficacy unless preceded by surgical treatment. He uses a two per cent. solution of pyoctanin to the curetted surface, and the sulphorcinate of sodium on the eighth or tenth day.

A Review of the Literature of Koch's Tuberculin R.

Dr. J. Dutton Steele (International Medical Magazine) draws the following conclusions:

1. The new preparation, if uncontaminated, does not seem to be more harmful than the old tuberculin if very carefully given. The dosage suggested by Koch is probably too severe. Much is left to be desired in the preparation of the material. In its present form it is usually contaminated. The greatest element of danger is the possibility of the presence of living tubercle bacilli. It may also contain streptococci, diplococci, staphylococci, and various saprophytic bacteria. Certain outputs of the substance are clearly stronger than others and more likely to cause serious reaction.

2. The injections are accompanied by much discomfort to the individual. The point of entrance of the needle usually becomes the seat of considerable inflammatory reaction, and occasionally of abscess formation. Much of this may be accounted for by the contamination of the preparation, or faulty asepsis in its administration; but, even in the absence of the former, and with extreme care in the latter, as in the series reported by Bussenius, some infiltration may occur. Very marked systemic reaction occurred in some part of the course of injection, but there is a reasonable suspicion that this may be caused by the apparent variation in strength of the preparation. It is possible that, if this uncertainty is overcome, immunity against the products of the microbe may be reached without undue reaction.

3. The immediate effects of the preparation upon existing lesions of the lung, larynx, bladder, and middle ear are too indefinite to admit of any certain opinion being formed concerning them. In lupus,

in various suppurating tracts, and in one noticeable case of tuberculosis of the uterus and its appendages, the remedy seemed to be of value; but whether of greater worth than the old tuberculin can only be determined by longer observation.

4. Koch's experiments upon guinea-pigs apparently established the fact that in them an immunity against both the bacteria and their products could be obtained, and, inasmuch as several patients after completing the course of injections stipulated by Koch received large doses of the old tuberculin without reaction, it would seem as if an immunity against the products of the bacilli could be produced in man. Whether such individuals possess also an immunity against the bacteria themselves, and therefore are protected against reinfection, must be settled by observations extending over a longer period of time. The observation of Baudach in this connection is pertinent: "The question of the production of immunity is unsettled. If there is none produced, then the only point of difference between tuberculin R. and the old tuberculin is the greater toxicity of the former." The class of cases in which the use of the remedy is justifiable is naturally very limited.

Gastric Ulcer.

On March 14, 1898, at the Medical Society of London, Dr. Seymour Taylor, in discussing the causation of gastric ulcer, reminded his hearers that the stomach lay nearly vertically in the abdomen, so that the so-called upper curve was really the right or lesser curve, the lower or greater curve being to the left. (British Medical Journal). Seven-eighths of the organ, at least, lay to the left of the median line. The dome of the cardiac end rose quite an inch (sometimes more) above the level of the cardiac orifice. He pointed out that the pylorus was not a valve, but a sphincter, and its aperture would admit the little finger. He described two well recognised varieties of innocent ulcer of the stomach: (1) The so-called chronic ulcer; (2) the perforating or acute ulcer. He believed that these were distinct diseases, distinct in their etiology and in their pathology. The chronic ulcer affected males in the proportion of 72 per cent. of the cases, mostly between 45 and 60 years of age. It did not occur exclusively in the poor, but rather in those who led busy excited lives, and were well off enough to indulge in large table extravagances. The chronic or spreading ulcer was usually situated near the pylorus; it was irregular in outline, and the surrounding tissue consisted of the proliferated and heaped up cellular elements of the stomach coats. Before perforation could take place there was almost always inflammatory adhesion to some solid viscus. He quoted the observation of Dr. Sidney Martin, that "anatomy appears to show that the ulcer was chronic from the first, and that there is little evidence that it originated in the acute form of ulcer." As regards symptoms there might be no premonitory sign, the lesion occasionally only being discovered post mortem. One characteristic feature was the large amount of vomited matter. There might be intervals of comparative health, and freedom from pain and distress, but they returned on the first indiscretion of diet. Such sufferers were peculiarly prone to errors of diet; in fact, their appetites were depraved, so that treatment was often disappointing. He insisted on the extremely infrequent occurrence of the clean punched out ulcer in males; as far as his researches had gone in the London Hospital museums only two instances had been found. The perforating ulcer was most frequent in women, being, indeed, almost limited to this sex. Moreover, the victims were mostly single women between the ages of 16 and 30. The influence of occupation and surroundings was well marked, and there was a great similarity of etiology between chlorosis and acute ulcer. In both diseases a great preponderance of cases occurred in single young women, whilst possibly domestic servants and dressmakers accounted for more examples than any other rank and calling. It was noteworthy that in almost every case of acute gastric ulcer there was a previous history pointing to chlorosis. The site of the ulcer was variable, but its shape was constant. Though most frequently situated near the lesser curve of the stomach, it might be found in the cardiac region, on either curvature and on either aspect of the viscus. In contrast with the chronic ulcer there was no marked inflammatory proliferated zone, and during the stage of active process there was no obvious alteration of tunics in the immediate neighborhood. He suggested that the lesion was a nerve lesion of the nature of neurotic dystrophy. He commented on the marked differences in the symptomatology of the two varieties of ulcer, alluding incidentally to the fact that the severity of the symptoms was often in inverse ratio to the gravity of the pathological lesions. The pathological theories put forward to explain its occurrence were (1) mechanical, (2) vascular, (3) glandular and (4) neurotic. He dismissed the hypothesis of thrombosis necrosis as untenable, and he was unable to admit that local traumatism could be incriminated. The vascular theory he regarded as unsatisfactory because it did not explain why the ulcer, if thus caused, should be single. The glandular theory did not commend itself to him because it ignored the fact that the disease was confined to one sex, and occurred only in early adult life. In fact a local neurosis was, to his mind, the only satisfactory pathology. In support of this view he instanced the great preponderance of cases amongst young women, the character of the lesion, which reminded one of perforating ulcer of the foot in tabes as well as of those met with in herpes, and lastly, its undoubted association with chlorosis. He asked them to admit with him that chlorosis was a neurosis, because this was essential to his contention that both diseases had a common neurotic origin. He quoted numerous authorities in support of the view that the two conditions were closely associated, and he urged that the only satisfactory ground of argument for this view was to be found in the proposal that both chlorosis and acute ulcer were neurotic in their origin. In conclusion, he urged upon them not to delay affording such patients surgical skill, even though there was reason to suspect that the ulcer had perforated into theperitoneum. Delay meant death, and they ought not to allow any patient to perish for want of a laparotomy. Rather than overlook the urgency of the symptoms and allow a patient to die when the surgeon might have brought about a cure, he would advise the operation ten times over.

Prevention of Impregnation by Division of the Tube.

Kehrer, according to the Boston Medical and Surgical Journal, insists upon the importance of preventing patients with certain chronic and wasting diseases from becoming pregnant. This may also be desirable in cases of extreme pelvic contraction. It would seem more rational under these conditions to render such women sterile than to resort to the inevitable alternative of artificial abortion after pregnancy has occurred. None of the ordinary preventives is absolutely certain, at least in the hands of the laity.

Since removal of the adnexa is followed by climacteric disturbances, the writer suggests that a woman may be rendered sterile by simply dividing and ligating the tubes, as is practiced by some operators during Cæsarean section. From experiments on rabbits he found that this procedure was not followed by either hydro- or pyo-salpinx, as might have been inferred. He accordingly applied this method to the human subject in the following case: A woman aged twenty-seven years had borne six children, two of whom died soon after birth and the rest were either idiots or malformed. A seventh pregnancy was terminated artificially at the fourth month on account of the wretched condition of the mother, which had grown steadily worse after every labor. After mature consideration, and after the failure of the usual methods of preventing conception, it was decided to accomplish this result by surgical means. The usual anterior vaginal incision was made, as in vagino-fixation, the fundus uteri was drawn down into the wound, and each tube was ligated in twe places near the isthmus, and divided between the ligatures, care being taken not to include the vessels. The uterus was sutured in a position of anteflexion. Convalescence was normal, and the succeeding menstruation appeared at the usual time.

The advantages claimed for this method are simplicity and the absence of subsequent disturbances, especially atrophy of the genitals and the extinction of sexual desire. Should the adnexa be diseased, they are, of course, removed. The writer adds that this operation should only be performed as a last resort, at the request of the family physician, as well as of the husband and wife. In order to avoid subsequent complications, the written consent of the parties interested should be obtained. The criticism might be offered, he concludes naively, that total abstinence would accomplish the same result, but experience shows that it is practically impossible to maintain this restriction.

Medical Societies and the Lay Press.

Recently, at the New York Academy of Medicine (according to the Times and Register), the question was raised as to whether the public press should be notified of its general meetings, or its representatives be permitted to attend. A motion was made that they be excluded. This was lost. This action opened the discussions of the academy to representatives of the press, and raises the question, whether it may not be well that the same privilege be extended by all our other medical societies in the country.

At first glance it would strike one as highly improper to admit laymen to those societies which consider chiefly scientific questions, or medical conventions of any description. Their presence might seem in contravention with prevailing custom, and little less than an impertinent intrusion, which should be discouraged or suppressed.

Except, indeed, on those rare occasions, when such subjects are being considered, as are of public concern, it would seem that a medical meeting was no place for the ubiquitous reporter. While physicians are strictly prohibited from advertising in the lay dress, with what consistency can they appear in its columns, with impunity, when it is done through the medium of society discussions? It would seem to be clearly a violation of the code, but the code is long since a dead letter, and practically exists today only in memoriam, for it permits anything and everything.

Every year we have in this country an annual convention of the American Medical Association. This is a delegated body, composed, presumably, of straight-laced code men; but where, one might inquire, is there a meeting more widely advertised, or more fully reported in all its details by the lay press? All its general and secret sessions are thrown widely open to the public press, and in no better manner can one gather a notion of the extent and character of the work done than through the leading "dailies."

And this is as it should be, as in this progressive, enlightened age there is no reason why practitioners should wish to conduct their deliberations in secret, and, moreover, those members of the craft who go to the expense and undertake the labor of providing substantial contributions to our general knowledge are entitied to all the benefit our medical and lay press can give them. But it may be alleged that this is advertising, which it certainly is.

It should be remembered, however, that the midnight oil, weeks and months of laborious toil and effort are not consumed for one's health, and compensation must come through some source, and advertising through this means is the only one permitted.

The day of the harping, carping dog-in-the manger is past; the road is wide, and the way open to all.

None are so obtuse as to disregard the omnipotence of the press, or the obvious aid of it as an advertising medium.

In the New York Academy it is fair to assume that those members not engaged in special work, or not teaching staffs, would like to see the reporters driven out, while those whose labors provide the pabulum for its scientific maintenance are desirous of all the currency he may be able to give them.

Section on Diseases of Children of the American Medical Association, at Denver, Col., June 7-10, 1898.

PRELIMINARY PROGRAM.

1. Address of Chairman, J. P. Crozer Griffith, Philadelphia, Pa.

2. The Influence of Dystocia in the Causation of Infantile Diseases, Joseph Eve Allen, Augusta, Ga.

3. Thyroid Treatment in Early Myxedema and Cretinism in Young Children, Frederic Bierhoff, New York City.

4. Blood - Examinations in Pediatric Practice, S. E. Woody, Louisville, Ky.

5. Of the Value of Eye-Symptoms in Meningitis, A. Edward Davis, New York City.

6. Some Additional Researches on the Poisons Found in Milk and Milk-Products, Victor C. Vaughan, Ann Arbor.

7. Tubercular Arthritis in Children, John Ridlon, Chicago.

8. Some Skin-Eruptions which are Confounded with Infantile Syphilis, Charles W. Allen, New York City.

9. Preventive Treatment of Tuberculosis in Children with Hereditary Predisposition, John A. Robison, Chicago, Ill.

10. Fracture of the Clavicle in Children—with Especial Reference to Treatment by a Modification of Sayer's Method—in Over 200 Cases, A. Ernest Gallant, New York City.

11. Discussion of Above, Charles Power, Denver, Col.

12. Whooping-Cough, R. B. Gilbert, Louisville, Ky.

13. Eczema in Four Branches of a Family, Ella M. Patton, Quincy, Ill.

14. Report of Some Odd Results in the Treatment of Diphtheria with Antitoxin, Henry Anthony Strecker, Philadelphia, Pa.

15. Influenza in Children, James J. Concannon, New York.

16. The Treatment of Congenital Infantile Syphilis, Charles S. Shaw, Pittsburgh, Pa.

17. Mechanical Management of Difficult Defecation in Infants, Thomas Charles Martin, Cleveland, O.

18. Subnormal Temperature in Infectious Diseases, Henry H. Eround, Philadelphia, Pa.

19. The Influence of the Climate of Colorado on Diseases of Children, C. F. Gardiner, Colorado Springs, Colo.

20. Tetany in a Child 16 months old, Edward H. Small, Pittsburgh, Pa.

21. Tetany in Infancy, J. Lovette Morse, Boston, Mass.

22. Pneumonia. Laborde Treatment of

Artificial Respiration, A. E. Roussel, Philadelphia, Pa.

23. Clinical Studies of Multiple Neuritis in Young Children, Annie S. Daniel, New York City.

24. The Treatment of Tuberculosis in Children in New York City:—Remarks based on ten years' experience, Louis Fischer, New York City.

25. The Treatment of Congenital Talipes, Harriet E. Garrison, Dixon, Ill.

26. The Debility of Adolescence, Louis Faugeres Bishop, New York City.

27. Discussion of Intubation and Diphtheria, Solomon Solis–Cohen, Philadelphia, Pa.

28. The Diagnostic Value of Tuberculin, Dillon Brown, New York City.

29. Some New Facts Concerning Scarlet Fever, Joseph William Stickler, Orange, N. J.

30. Formative Nutrition, H. W. Scaife, A. M., M. D., Chicago.

31. Tuberculosis of the Iris, A. C. Thompson and Samuel J. Gittelson, Philadelphia, Pa.

32. Tubercular Peritonitis, F. F. Lawrence, Columbus, O.

33. Cycling Vomiting in Children, Charles Goodwin Jennings, Detroit, Mich.

34. Auto-Infection vs. Typhoid Fever, as Seen in Young Children, W. C. Hollopeter, Philadelphia, Pa.

35. Discussion in Diphtheria and Tubercular Diseases, Edwin Klebs, Chicago, Ill.

36. Data Derived from 100 Cases of Laryngeal Diphthria, Including 45 Intubations, Rosa Englemann, Chicago, Ill.

37. Management of Infectious Diseases in Children, I. N. Love, St. Louis, Mo.

38. Is the Use of the Term "Typhoid-Pneumonia" Justifiable? A Case in Point, Henry E. Tuley, Louisville, Ky.

39. Neurotic Purpura, Francis A. Thompson, Milwaukee.

40. Mortality in Children Due to Neglect, for which the Physician is Responsible, W. A. Dixon, Ripley, O.

41. Dentition, Joseph Clements, Kansas City, Mo.

42. Observations in Diphtheria, H. D. Jerowitz, Kansas City, Mo.

43. Demonstration in the Method of Auscultation and Percussion for Heart and Lungs, Herbert B. Whitney, Denver.

44. Discussion of Dr. Whitney's Method, J. N. Hall, Denver, Colo.

45. John H. Musser, Philadelphia.

46. James C. Wilson, Philadelphia.

47. J. P. Crozer Griffith, Philadelphia.

48. What Influence do Stimulants and Narcotics Exert on the Development of the Child? E. Stuver, Rawlins, Wyo.

49. Milk-Food in Infants.

50. Gastro-Intestinal Choleriform Diarrhea, Edward L. David, Louisville, Ky.

51. The Diagnosis and Treatment of Inherited Syphilis, E. C. Davis, Atlanta, Ga.

52. Discussion of Intubation and Diphtheria, Robert Levy, Denver, Colo,

53. Serum Treatment of Diphtheria, as Viewed by the General Practitioner, during the last year, Alexander McAlister, Camden, N. J.

Papers and Discussions are also promised by others.

Edwin Rosenthal, Secretary,
517 Pine Street, Philadelphia, Pa.

The Management of Breech Presentation.

Dr. Joseph Eve Allen (Medical and Surgical Journal) says: In the management of breech cases the position of the woman during delivery is a matter of the greatest importance. She should always be placed across the bed in the lithotomy position, for in this position the operator is able to use both his hands to the best advantage and can promptly render such assistance as may be required. The presence of a skilled assistant is often advantageous, but anesthesia should never be resorted to except in very rare cases. When the breech is delayed in the pelvic canal I have found that the hand is generally the best instrument to effect its extraction, and that the blunt hook, fillet and forceps are of very little service. Several times I have used the forceps with good effect upon the after-coming head, and they should always be in readiness to meet an emergency. Whenever the breech presents and cephalic version is impracticable, I believe it to be good practice in all cases, as soon as the os is sufficiently dilated and before the child becomes fixed at the superior strait, to follow the advice of Dr. Bardes, of London, and introduce the hand and bring down a foot, thus converting them into cases of footling presentation. This maneuver breaks the wedge, favors descent, and does not in the least diminish the mass which dilates the birth-canal for the passage of the head. It is surprising how soon, in such cases, delivery takes place after a foot has been extracted.

When the child is premature or under size, so that the head and arms can enter the pelvis together, Deventer's is the best method of delivering the after-coming head. This method consists in grasping the feet with one hand and making traction directly downward and backward, while with the fingers of the other hand pressure is made on the upper portion of the shoulders. This procedure is only suited to those cases in which the arrest is low in the pelvis or at the perineum. If the arrest is at or above the superior strait and the child is fully grown, the Prague method should first be employed. and after the head has been made to engage, the combined method should be resorted to, as it then best subserves the interests of both mother and child. In the Prague method the operator drags the feet down with one hand and the shoulders with the other until the head enters well into the pelvic canal; the body is then carried upward, while the hand on the neck prevents the descent of the occiput and thus aids in flexion. The danger in this method is that the great traction on the neck is apt to do injury to the child. This is obviated by the combined method in which flexion is accomplished by pressure upon the superior maxilla, or by pulling with two fingers in the mouth. In practising the combined method of delivery traction should never be made with the fingers in the mouth because this dees not thoroughly flex the head and is very liable to lacerate the cheeks and dislocate the jaw. When delay is caused by the arms being caught up over the head, it is sometimes better to break a limb rather than lose valuable time trying to get it down; especially is this the case when the arm is caught behind the occiput.

Pfeiffer's Theory Regarding the Nature of Antitoxins and Bactericidal Antibodies.

In effect and for practical purposes, Ehrlich's theory does not seem incompatible with that of R. Pfeiffer, who assumed that the antitoxins and bactericidal immunizing principles which result from bacterial infection and intoxication are ferments (enzymes) which are secreted by the cells of the body and exist in an active unstable, and a passive, stable form. (Medical Review.) The relation of the active to the passive form is compared by Pfeiffer to glucose and glycogen. As glycogen is reconverted into glucose upon the demands of the tissues, so is the passive, stable form of antitoxic and bactericidal enzymes converted into the active, unstable form when the respective cells are irritated by the particular toxin.

Pfeiffer's theory is beautifully illustrated *in vitro* by mixing cholera vibriones with bactericidal cholera serum when Pfeiffer's lysogenic bactericidal phenomenon does not take place until a drop of serum of the peritoneal cavity of a healthy guinea pig is added to the mixture. This drop of peritoneal exudate contains the cell secretion which, coming in contact with cholera serum, produces Pfeiffer's phenomenon in the presence of cholera germs.

The role which cells (not leucocytes, as Pfeiffer has demonstrated) play in the secretion of this hypothetical substance is illustrated by the much more intense and stormy production of Pfeiffer's phenomenon when the place of action is the peritoneal cavity instead of the test tube. As a paradigma of the ferment like action characterizing this phenomenon Pfeiffer cites the role of fibrin ferment in Schmidt's theory of the fibrin formation in the blood plasma.

The physical and chemical properties upon which Pfeiffer bases his opinion that antitoxins and bactericidal antibodies (Antikœrper) are ferments are, in addition to the fact that they are compounds of nitrogen, their resistance to the action of heat (60 deg. C.), putrefaction, and that of pepsin and trypsin.

Surgery as a Specialty.

The Journal of the American Medical Association throws out some very practical suggestions regarding this special line of work:

At present there is a delusive kind of fascination in making surgery a special study. Most of the recent graduates aspire to eminence in this field. The apparent certainty of diagnoses, treatment and results seem so clear and tangible, that the practice is sought for as the shortest road to fame and fortune. In a graduating class of 140, sixty expressed their intention of pursuing surgery as a specialty. It is the common observation that among the large number of well trained surgeons, who are also teachers in large cities, few ever attain more than a narrow local reputation. Fewer still ever do any original work, or advance the boundaries of the known. Our readers will recall many very active surgeons who have an immense experience and practice, who have never published a new fact or new method of procedure. They will also recall a number of volumes which are absolutely without any new facts, and in some cases are weaker and more feeble statements of truths already well known. It was a source of wonderment to many persons that a most accomplished surgeon and teacher never contributed a single new fact to surgery, although he wrote well and voluminously. The literal explanation is that surgeons are born not made, and no amount of training and experience can make one, who will do original advanced work unless he has some natural fitness for it.

Modern surgery calls more and more for first-class mechanical talent; it calls for natural machinists with a strong mathematical brain, full of resources and capable of using the present means to the fullest extent. Such men are resourceful, inventive and reasoning; their observation and judgment are clear and independent. Every great surgeon would have made a leading mechanic or inventor, or great business operator, and every great surgeon is original in his work although it may be confined to small details. The mere mechanics of surgery may be acquired in a degree by nearly every one, but a knowledge of the higher mechanics of the chemico-physiologic work of the organism can only be understood by a natural born inventor and mechanic. The dexterity of operating is not comparable to the reason and judgment of when and how to do it. A noted New York surgeon while riding in the country broke a wheel of his carriage; he soon repaired it with such skill that he was able to continue on his journey as if nothing had happened. Another surgeon broke his carriage in the same way and left it, continuing his journey in another vehicle. One had the mechanical sense developed, the other was without it.

Every physician should be able to act in emergency cases, but the man who aspires to be a specialist in this field should have strongly marked inventive genius. This specialty is a very poor field of practice to one who is not especially adapted for it.

Unfortunately in medicine, as in other professions, there are many ill adapted persons for the work required, but the aspirant for surgical honors, without natural mechanical and surgical capacity, is literally more unfortunate than others.

The Action of the Alkaloids of Opium upon Peristaltic Motion.

Dr. V. Vamossy (Rev. de Therap.) arrives at the following conclusions as to the cause which gives to opium a greater inhibitory action on the peristaltic motion of the intestines than morphine.

1. Morphine injected in the venous circulation has the power by its centric action to hinder the action transmitted by the pneumogastric to the centers, that its centripetal action is not transmitted by the centrifugal route to the intestine and does not provoke contractions.

2. Local injections of morphine into the intestines showed that the excitability and conductivity of the nervous system of the intestine undergoes a considerable diminution as the result of the local irritation.

3. The excitations which pass by the centrifugal motor channels to reach the intestinal wall encounter the terminal nerve fibers and ganglions in a state of narcosis.

4. Narcotine acts but slightly as an inhibitor of reflex excitability in the intestinal wall, and possesses no inhibitory action upon peristalsis.

5. Papaverine resembles morphine more closely in its action upon peristalsis, but its action is too unstable.

6. Thebaine augments intestinal excitability and provokes in consequence an intense peristalsis.

7. It can no longer be held that narceine acts in opium as an augmenter of inhibition to peristalsis.

8. Codeine exaggerates the intestinal excitability.

9. Cryptopinine and laudanine also act as augmenters of intestinal excitability.

As the result of his study the author concludes that opium does not owe its favorable influence upon the intestines to the presence of the accessory alkaioids which it contains.

Aseptolin--Edson.

Dr. Cyrus Edson, in speaking of the line of research which led up to his determination to experiment upon an antiseptic fluid applicable to germ diseases (especially phthisis), says:

"It has long been my personal belief that many pathological phenomena observed in diseases which are not usually credited to germ infection, are but the manifestations of the absorption of poisonous bacterial products. For example, the high temperature of fever may arise from the poisoning of the nerve centre by such products. If this be true, then the increased secretion of phenol is one of nature's many devices to cure the underlying condition, to destroy the germ infection. The increase of phenol elaborated by the system during pathological conditions is, in the light of the knowledge we have of bacteriology and phenol, extremely significant. This reasoning naturally led me to think phenol was selected by nature for the cure of some at least, if not all, of the so-called germ diseases. Of course the conclusion was obvious, but the corollary of that conclusion, which assumed great importance in my mind, was this:—

If nature herself provides phenol during disease, then it cannot be possible she will not tolerate the administration of the agent in effective dosage. Yet the fact stared me in the face that any injection of any known solution of phenol in effective dosage was believed to cause poisonous symptoms. This was equivalent to saying there *must be some form in which phenol could be injected in effective dosage which would aid nature in her efforts to effect a cure, and which would be tolerated by the human system.* Moreover it was apparent to me that phenol, being the only known antiseptic agent, except its homologue, cresol. of which the amount in the system is increased during disease, it would be the best to select for experimental purposes to the exclusion of any other. When we follow nature along her efforts to effect cure we cannot go far wrong. The problem before me, then, was to find the form of solution of phenol which nature would tolerate."

This problem has been solved in his preparation of phenol and pilocarpine, the well known aseptolin. Dr. J- B. Ransom, the noted physician of Clinton Prison at Dannemara, made an extended test of this preparation upon the inmates of this prison. Quoting from his report, he says:

"The use of Aseptolin was begun at the time stated with four cases, and that number has been gradually augmented, until the whole number treated has now reached fifty-seven.

In order to test the range of application of the remedy, different types of tubercular and septic diseases were selected for treatment. Thus of the fifty-seven cases, three were acute pulmonary phthisis; fourteen were recent; thirty-two chronic; one tubercular pleurisy; one chronic tubercular peritonitis; two glandular tuberculosis: two tubercular diseaes of the bones; two suppurative diseases of the bladder. The general effects produced by the injection of Aseptolin as noted by me were:

1st. The regulation of the heart's action. 2nd. Reduction of temperature. 3d. Stimulating tonic to the nervous and muscular systems. 4th. Sleep producer. 5th. Improves appetite and digestion, and increases weight. 6th. Lessens cough and night sweats. 7th. Tends to lessen the elimination of albumen.

One of the most constant and decided effects of the Aseptolin injection is upon the circulation. This effect was very pronounced, and manifested itself in an increased color of the skin, ears and lips, and a general reduction of pulse beats, with increased volume and regularity. In several of the cases, where the pulse was at the time of the first injection registered at 100 or more beats, by the time the third injection was given was reduced to 72. In nearly all cases the pulse was brought to about the normal.

Aseptolin in my hands has been a heart regulator of unquestionable value. Indeed I am perfectly satisfied that it is an efficient remedy in septicemia, and especially is this action manifest in the secondary suppurative process of advanced phthisis, all septicæmic symptoms rapidly abating under its use."

Literature upon the subject will be furnished to physicians upon application.

Pneumonia: A Multiple Infection.

Dr. J. W. Moore (British Medical Journal) says: "I venture to submit that there is clinical evidence to show that a true pneumonitis may occur in any one of the four diseases with which this communication deals—that is to say, erysipelas, influenza, tuberculosis and enteric fever. Further, it is reasonable to suppose that in each case the pneumonitis is directly due to a localization of the specific poison of the disease in the lung, whether the poison be a microbe-organism itself or a toxin derived therefrom. Indeed, in respect of three out of the four diseases named, the evidence from a bacteriologal standpoint in favor of such a view is incontrovertible.

"As regards enteric fever, the influence of season and weather in determining pneumonic trouble is no doubt considerable; but it cannot be accepted as paramount or exclusive. And, if it is objected that the bacilli typhi abdominalis of Eberth have not as yet been often found in the lungs or sputum of enteric fever patients, I am justified in attributing this to the comparative infrequency with which so far search has been made for these bacteria in the pulmonary organs. Here, in any event, an almost untrodden path of investigation lies open to the adventurous footsteps and the keen perception of our Irish pathologists and students of bacteriology."

Guaiaquin in Anæmia

Six patients suffering from Anæmia were markedly improved while taking Guaiacol Bisulphonate of Quinine (Guaiaquin). All were females whose ages ranged from fourteen to twenty-three years. The symptoms were pallor of face and lips, debility, and dyspnœa on exertion. All were ordered to take five (5) grains of Guaiaquin three times daily, after meals. Within a week the above symptoms began to disappear. At the present time they are still under observation, and continuing to improve. No iron or other remedy has been employed.

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HAS won the approval of physicians because its merits have been proved by years of clinical success—often in cases when life seemed depending on its retention. Therefore, while a very large majority of the medical profession are acquainted with its great value, and know from experience that no other food fills so satisfactorily such a wide range of usefulness, still no article of exceptional merit can be favorably received and recommended by physicians without being closely followed by imitations and competition, and the IMPERIAL GRANUM is not an exception.

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It contains no malt, no cane-sugar, no glucose, but is an absolutely pure food, most carefully and conscientiously prepared from the finest growths of wheat, and contains the largest possible quantity of nourishment, requiring the least possible labor for its digestion, and although in extreme cases it is prepared with water only, it is generally used in combination with milk, and no matter what physician's preference may be as to the form in which milk is to be used—as varying conditions may indicate—the perfect coadjuvancy of IMPERIAL GRANUM can always be depended on.

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SOLD BY DRUGGISTS generally.

Tubercular Peritonitis.

Holmes, in the Annals of Gynecology, says:

1. Tubercular peritonitis is a relatively common disease.
2. It is never a primary disease, though it is usually impossible to find the initial focus.
3. Recovery follows laparotomy. as a general rule, unless there is an initial focus to keep up the disease.
4. This disease appears in three different forms—the exudate form, the dry form, and the ulcerative form, and they are recognizable in the order named.
5. Microscopical examination of the peritoneum is sufficient for a positive diagnosis. The demonstration of microscopical tubercles, or the recognition of the bacilli are only confirmatory.
6. Puncture of the abdominal wall for diagnosis, or for the removal of ascites and injection of air, fluid or iodoform, is dangerous and should not be practised.
7. Laparotomy, with iodoform-gauze tamponade drainage, is the safest and most reliable treatment.
8. Laparotomy should be done as soon as there is a show of emaciation or when a relative diagnosis has been made.
9. A positive diagnosis can never be made before laparotomy.

To the Medical Profession.

It has been intimated that maliciously disposed dealers when interviewing the medical profession have stated that *Gude's Pepto-Mangan* is placarded on walls, fences, etc. The intention of such an assertion is evident, and is false in every particular.

There is a *Sign Advertising Co.* in this city whose line of work is in that direction, being of the same name "*Gude*" they place their name in bold letters and a passing glance might create the impression that *Gude's Pepto-Mangan* was being so advertised. THIS IS POSITIVELY NOT SO.

We have been before the medical profession of this country for upwards of seven years and have endeavored to conduct our business in the highest ethical manner. The following clause in our contract with Dr. A. Gude & Co., Chemists, Leipsig, covers the ground thoroughly:

Section I. And it is further agreed between Dr. A. Gude & Co., party of the first part, and the M. J. Breitenbach Co., party of the second part, that if at any time the said M. J. Breitenbach Co. should by device or by advertising attempt to increase their business in Gude's Pepto-Mangan *other* than through the recognized channels *to the Medical Profession* then in such event this contract is to become null and void, and all rights of the M. J. Breitenbach Co. existing under this instrument immediately become the property of said Dr. A. Gude & Co. *without recourse to law.*

Respectfully,

M. J. BREITENBACH CO.

Some Considerations of Abdominal Incisions.

Woolsey (Annals of Surgery) in studying this subject emphasizes the following conclusions as among those which may be drawn from the above considerations:

1. That abdominal incisions, except those in or close to the median line, should be obliquely transverse in order to parallel the nerves (and thereby also the cleavage lines of the skin), so as to avoid partial paralysis of the muscles, weakness of the abdominal wall, and a tendency to hernia.
2. That intermuscular or even transmuscular incisions should be preferred to those in the linea alba or semilunaris, for in both the latter cases the cicatrix is less strong and more prone to hernia, and in the semilunar line the nerves are necessarily divided.
3. That in place of the median vertical incision near the inner margin of the rectus, the trap door incision around this inner margin offers many important advantages.

The Christian Scientists have received what to them is a rather serious set-back in the State of Pennsylvania (Medico-Surgical Journal). They wanted a charter for the First Church of Christian Scientists, which the court refused to grant. The judge distinctly declared that if they were a purely religious and teaching body the Constitution would guarantee perfectly their liberties in such directions, but when they wanted a charter to give them the privilege to violate the laws of the State, no such charter could be granted. He showed that fo them to treat small-pox, consumption, cancer, or scrofula would be a violation of the act of March 24, 1877, that demands a proper education of every person who undertakes to treat disease.

"Coca" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain however. ROBINSON'S WINE COCA. (see page 396) we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of Cocaine being always determined by careful assay.

Practical Evidence.

I used your sample of Resinol on myself for Pruritus Ani, which has been my curse for several years, defying all applications. The first application proved efficacious, and I am now using and prescribing Resinol for the above and several other itching troubles. In fact, I think it is the best remedy I have ever used for the diseases for which it is recommended.
H. B. LEIGHTON, M.D., Boston, Mass.

I have used your Resinol in Inflammatory Rheumatism with happy results. Hope others will try it. I know they will be pleased.
E. J. BURNSIDE, M. D., Phila., Pa.

It gives me pleasure to say that Resinol is the best application for local treatment of Eczema I have ever used. I can also bear testimony to its efficacy in Erysipelas, and its soothing and healing virtues in all inflamed surfaces.
A. S. FRENCH. M.D., Lawrence, Mass.

It is but just that I should attest my satisfaction with the use of Resinol. It is a marvel of efficacy in Pruritus Ani. In relief of soreness, due to scalding from acute Nasal Coryza, it acts like a charm.
J. H. THOMPSON, M.D., Goshen, N.Y.

Resinol is by far the best application I have ever used in a practice of 48 years for the diseases recommended. A case of Eczema commencing on the scalp and extending over the entire face and which had been under the treatment of various physicians with no apparent benefit, was completely cured by it in less than two weeks.
J, J. WORTHY, M.D., Lavalle, Wis.

I am very much pleased with the effects resulting from the use of Ung't Resinol in cases of Itching Piles, Pruritus Ani, and Vulvae, Eczema, Erysipelas, &c. In fact it is the remedy "par excellence" in all cases where there is a Congested or Hyperaemic condition of the capillary Blood Vessels. C. D. SMITH, M.D., Atlanta, Ga.

I frequently prescribe Resinol, and am well pleased with its work. It has proved very useful in many forms of eruption of the skin, and especially so in Pruritus Vulvæ or Ani, and in Eczema of other parts of the body.
LUCY HALL BROWN, M.D., Brooklyn, N. Y.

I take pleasure in stating that I have found Unguentum Resinol almost a specific for Pruritus Ani, Itching Piles and Marginal Eczema.
HENRY HUG, M.D., Detroit, Mich.

Resinol is a harmless antiseptic and a true skin anæsthetic, absolutely non-irritant and non toxic (free from lead, mercury, or cocaine), can be applied to mucous, excoriated or denuded surfaces of any extent at any age without fear of untoward results, and is not contra-indicated by any internal medication that may be deemed advisable.

Resinol is put up in *one ounce* jars at 50 cts. each, and can be obtained at any drug store. **Sample** sent **free** on application, or **one** regular size jar for trial on receipt of 25 cents.

RESINOL CHEMICAL CO., Baltimore, Md.

Accidents Due to the Employment Antipyrin.

M. C. Clement, after carefully studying this subject, arrives at the following practical conclusions:

1. Antipyrin should never be prescribed for very old people, for subjects attacked with non-compensated cardiac lesions, or for those in an adynamic condition.

2. In influenza and erysipelas it should always be associated with quinine, and, in convalescence, with strychnine or caffeine.

3. In arthritic subjects, who are nearly always dyspeptics, it should be associated with an alkali (sodium bicarbonate or sodium benzoate) and prescribed in solution. If it cannot be taken except in a capsule, the patient should drink a quarter or half a glass of Vichy immediately after taking the capsule.

4. In tuberculous subjects twelve grains at a time should not be exceeded, and the condition of defervescence should be carefully watched. It is well in these cases to combine alcohol and antipyrin and give the latter in solution.

5. In diabetic subjects the association with alkalies is obligatory.

6. In children antipyrin may be administered without inconvenience even in amounts proportionately larger than in adults, provided it is given in divided doses. This tolerance depends as much upon the integrity of the renal functions as upon the mode of administration, which should nearly always be by the solution.

The Medical Excursion in June to Denver and Salt Lake City.

The American Medical Association meets at Denver June 7th to 10th. One of the features of the gathering will be an excursion from Denver to Salt Lake City and return via the D. & R. G., Colorado Midland and Rio Grande Western Rys., through the "Heart of the Rockies," furnishing a splendid opportunity to view the most magnificent scenery on the American Continent. Salt Lake City is an ideal Summer Resort and the bathing at Saltair in the Great Salt Lake—inland Salt Sea nearly a mile above Sea Level—is superb in June. There are more attractions in and about Salt Lake City than any place in the world. Later notice will appear in this publication giving rates for this excursion and all details. In the meantime send to F. A. Wadleigh, G. P. A., Rio Grande Western Ry., Salt Lake City, for copy of pamphlet on Salt Lake City and the Rocky Mountains.

Protection for Physicians.

I studied medicine, not to have a vestibule train title attached to my name, but to insure me bread and meat and some of the comforts of life. In 1887 I received my diploma and was prepared to practice, but soon found that beyond a living I could not create any large bank account. In 1896 I cut loose from the practice of medicine as the sole means of making a livelihood and coining money, and hit the trail of the almighty dollar, like a hungry coyote chasing a corpulent jack rabbit. I did a great deal of work for sweet charity's sake and in the hope of climbing higher and securing my share of the practice among the wealthy. But to my sorrow I found that the laity thought I was only bilious instead of full of the grace of God. I concluded that charity, glory and practice, like oil and water, would not mix—at least in a business way. Being averse to living on hope and hominy, I prepared to merchandise and farm to make money, and determined to continue the practice of medicine, not for glory and charity to be bestowed by the laity, but to pay the assessments on my celestial policy to mansions in the skies. Dr. C. M. Strong's central idea, in his matchless article on this subject (in the February number of your journal) is for us "to unite for protection." But he does not suggest the plan. He doubtless thought it would be an uncertain and perilous undertaking. As I am far removed from you I will venture this suggestion: That the Charlotte Medical Society formulate a plan wherein accounts will be put into the hands of the society for collection. The society will employ an accountant at a fixed salary. Each member at the end of every month will be required to turn over to the accountant the amount of work in detail done by him. The accountant will receipt him for the same. All accounts will become due at the expiration of three months and are to be collected by the accountant and paid over to the members. Each member receipting the accountant for the amount collected and paid over to him on his individual account. An organization like this makes a combine, places the whole medical fraternity behind the collection of each individual's bill. The laity cannot take exceptions and fly from one doctor to another for they are bound to receive the same treatment from all. This does away with our weak points—*i. e.*, first, the effort that each physician makes in trying to excel his brother physician in charity; second, the effort he makes to excel in appearing grateful, obliging and pleasing for the crumbs and ducats thrown at his feet by the wealthy.

It will allow us to throw off the yoke of slavery and establish our independence. We are always starting a craze intended to relieve suffering humanity. Is it not time for us to start one that will relieve us pecuniarily? The fad at the present time is appendicitis. Soon we will have appendicitic sermons, bon bons, hats and appendicitic drinks. Let us start a fad on organization, that will eventually prove lucrative to the profession. Let us not approach this subject timidly—not with long teeth, like a politician eating crow. Let us make it a fad that will spread over the land like the la grippe bacilli—and in the near future we may hope to derive some material benefit therefrom.

J. J. Hawkins, M. D.

Canton, Mo.

The Blot Upon the Brain.

William W. Ireland, in his interesting psychological studies, gives us some food for reflection concerning the various forms of blots with which the brain of humanity may be afflicted. The Pacific Medical Journal, in quoting this writer, says: Opportunities make thieves as well as saints, merchants as well as great generals, and the peculiar opportunities offered by our rapidly changing evolutionary nation forms psychological monstrosities seen nowhere else. Take some of our proverbially self made rich men as an example, not those who have become so through the gradual increase of some commercial or industrial pursuit, but those who have developed a mania for money making through stock speculations. Such men and women soon lose all tastes for any civilized mode of entertaining one's self. A good dinner, a good book, an entertaining conversation, cheerful company, are about as entertaining to the lunatics as a lecture on moral ethics would be to an Apache Indian. They have come to know but one enjoyment, and that enjoyment is more money getting. The more they have, the more they want, and the less they know how to use it for their benefit.

H. Tuholske, M. D., Professor Clinical Surgery and Surgical Pathology, Missouri Medical College, also Professor of Surgery Post-Graduate School writes as follows:

I have used Dioviburnia quite a number of times; sufficiently frequent to satisfy myself of its merits. It is of unquestionable benefit in painful dysmenorrhœa, it possesses antispasmodic properties which seem to be exerted especially on the uterus.

LISTERINE

The Standard Antiseptic.

LISTERINE is a non-toxic, non-irritating and non-escharotic antiseptic, composed of ozoniferous essences. vegetable antiseptics and benzo-boracic acid.
LISTERINE is sufficiently powerful to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.
LISTERINE has ever proven a trustworthy antiseptic dressing for operative or accidental wounds.
LISTERINE is invaluable in obstetrics and gynecology as a general cleansing, prophylactic, or antiseptic agent, and is an effective remedy in the treatment of catarrhal conditions of every locality.
LISTERINE is useful in the treatment of the infectious maladies which are attended by inflammation of accessible surfaces—as diphtheria, scarlet fever and pertussis.
LISTERINE is especially applicable to the treatment of scarlet fever, used freely as a mouth wash, or by means of the spray apparatus.
LISTERINE is extensively prescribed in typhoid fever both for its antiseptic effect and to improve the condition of the stomach for the reception of nourishment.
LISTERINE agreeably diluted, is prescribed with very good results, in the treatment of diphtheria, both as a prophylactic and curative—internal antiseptic—agent.
LISTERINE is used extensively with good results in the treatment of whooping cough.
LISTERINE diluted with water or glycerine speedily relieves certain fermentative forms of indigestion.
LISTERINE is indispensable for the preservation of the teeth, and for maintaining the mucous membrane of the mouth in a healthy condition.
LISTERINE employed in a sick room by means of a spray, or saturated cloths hung about, is actively ozonifying and imparts an agreeable refreshing odor to the atmosphere.
LISTERINE is of accurately determined and uniform antiseptic power and of positive originality.
LISTERINE is kept in stock by the leading dealers in drugs everywhere.

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Close clinical observation has caused LAMBERT'S LITHIATED HYDRANGEA *to be regarded by Physicians generally as a very valuable* RENAL ALTERATIVE *and* ANTI–LITHIC AGENT.

ALBUMINURIA.
BRIGHT'S DISEASE,
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and all forms of
VESICAL IRRITATION.

For Descriptive Literature, Address

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ST. LOUIS.

Diet in Typhoid Fever.

The following appears in the editorial columns of the Therapeutic Gazette:

"One of the gravest dangers which threatens the continuous success of the busy practitioner is the tendency to relapse into what is known as routine treatment, which consists either in prescribing identical preparations to patients with the same general disease, but with different manifestations, or adhering rigidly to fixed lines of diet when a little thought and care would enable him to vary the diet, and so improve the nutrition of the patient. At least he need not enforce strict adherence to a particular line of food products.

In no disease is the importance of liberal feeding greater than in typhoid fever, for in this malady the patient, through a number of weeks, has his strength continually sapped by fever, diarrhea, and the various complications of this malady, with the result that at the end of even a mild attack he finds himself in convalescence miserably weak and lacking both nervous and muscular energy. It is a noteworthy fact, familiar even to the laity, that this lack of power of mind and body often lasts for many months after apparent recovery has taken place. The question naturally arises whether this atony and asthenia are an unavoidable consequence of the disease, and if so, whether it is possible to modify them to such an extent that convalescence may be more rapid and that recovery from the attack itself may be the sooner arrived at. It has been the custom of a great number of the profession for many years to order an absolute milk diet for patients suffering from typhoid fever, and to continue them on this diet for a number of days or even a week after the fever has disappeared and the temperature of the patient has been normal. Further than this, this diet is frequently insisted on when complications of typhoid fever arise which still further aid in decreasing the patient's vitality, and often a milk diet is insisted upon when it seriously disagrees with the patient, who because of idiosyncrasy, or because of some complication of his disease, is unable to digest milk properly. We have reached these conclusions not only from general and personal experience in which we have recently had ample opportunity to become convinced of this matter, but by reason of an article published by Dr. Frederick C. Shattuck, of Boston, upon this topic. After some general considerations he tells us that from 1886 to 1893, 233 cases of typhoid fever were treated in the Massachusetts General Hospital under a milk diet, with a mortality of 10 per cent.; from 1892 to 1897, 147 cases have been treated under a much more extended diet, with a mortality of 8.1 per cent. He recognizes fully the liability to error in reckoning from too small figures in any infectious disease, and while he does not urge that this slight decrease in mortality may have been due to the more liberal diet allowed, it certainly points to the fact, as he thinks, that the more liberal allowance of food has no deleterious influence.

Dr. Shattuck believes that we should treat the patient rather than the disease, and feeding him with reference to his digestive power rather than solely with reference to his fever, particularly as there are many other articles of diet than milk which can by no possibility exercise a harmful influence upon the intestinal ulceration. The diet list which he allows and which would certainly be considered very liberal in the average hospital and in many cases of private practice is as follows:

1. Milk, hot or cold, with or without salt, diluted with lime water, soda water, apollinaris, vichy; peptonized milk; cream and water (*i. e.*, less albumen); milk with white of egg, buttermilk, kumiss, matzoon, milk whey, milk with tea, coffee, cocoa.
2. Soups: beef, veal, chicken, tomato, potato, oyster, mutton, pea, bean, squash; carefully strained and thickened with rice (powdered), arrowroot, flour, milk or cream, egg, barley.
3. Horlick's food, Mellin's food, malted milk, somatose.
4. Beef juice.
5. Gruels: strained corn meal, crackers, flour, barley water, toast water, albumen, water with lemon juice.
6. Ice cream.
7. Eggs, soft boiled or raw; egg-nog.
8. Finely minced lean meat, scraped beef; the soft part of raw oysters; soft crackers with milk or broth; soft puddings without raisons; soft toast without crust; blanc mange, wine jelly, apple sauce, and macaroni.

There are several articles in this list which we believe few, if any, typhoid fever patients ought to receive, and these are the soups, the beef juice, and the finely minced lean beef. In our experience all of these preparations tend to produce or to aggravate pre-existing diarrhea; and beef broth, as is well known, provides a very favorable culture medium for the typhoid bacillus. We have frequently seen the use of animal broths substituted for milk, and active, ill-smelling diarrhea with great flatulence has followed. To the list just given we may add soft cup-custards, and instead

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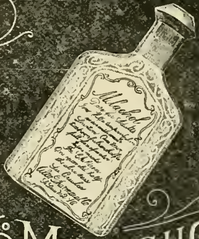

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of limiting the patient to milk with white of egg we have recently seen most valuable results follow the administration of egg boiled just long enough to take away its raw taste and yet not to harden the white. From one to six eggs prepared in this manner and administered to the patient by means of a spoon or in a cup, if he is strong enough to drink the egg, will do much towards maintaining strength, particularly in those cases where milk disagrees.''

The Dietetic Treatment of Phthisis.

The following are extracts from a paper read by Henry P. Loomis, M. D., before the Association of the Bellevue Hospital Alumni on the dietetic treatment of phthisis:

''Given a case of pulmonary tuberculosis—what weapons at the present time has the medical man at hand with which to combat this disease? Climate, food, and medication. Of these, all things being equal, judicious feeding is the most potent.''

''It is a well recognized fact in phthisis that, as the patient's weight increases, the symptoms ameliorate, and the physical signs in the lungs improve.''

''We say, then, increase in weight in phthisical patients, with the attendant good results, is brought about by forced feeding, in many cases without the aid of medication.''

''What may this food be? Milk and meat are the two articles of food which in themselves furnish the greatest amount of heat and force producing elements with the least expenditure of digestive energy.''

''Next in order to meat and milk as food come stimulants and Cod-liver oil.''

''It is well known that muscle fibre is a loose combination of albumen and fat, and that fat is a component factor in all muscular histogenesis. So, in phthisis, fat is necessary to the building up of health and tissue, and the dietary should be as rich in fat as the assimilative powers of the patient will allow. The greatest evidence of the value of fat in the food of phthisical patients is furnished by the universal confidence placed in Cod-liver Oil as a curative agent. It is only the best form of fat because it is the most easily assimilated of all, and can frequently be absorbed when no other fat can be.''

''Cod-liver Oil, which is really not a medicine but a food, should be taken in ʒ ss doses after each meal, whether directly after the meal, or after a half hour interval, must be decided according to the personal idiosyncrasies of the patient.''

''Second Stage.—This is the period which will most try the physician's patience, and is the one in which systematic diet is absolutely essential.''

''Cod-liver Oil will be required, but the greatest care must be used in its administration.''

''Especially in patients in middle life, the pure oil with whiskey will give the best results. Other cases can take Cod-liver Oil in capsules. Still others can only take the oil in the mixture known as Hydroleine. I feel so sure of the great benefit derived from Cod-liver Oil in this stage, that all known methods of administering it should be tried before it is abandoned.''

Professor Edwin Klebs' Recent Investigations of Yellow Fever.

The North American Medical Practitioner for March thinks that it is very probable that Prof. Klebs has discovered the cause of yellow Fever. The editor says:

During the last few months, in his laboratory at the Chicago Post-Graduate School and Hospital, Professor Klebs has been making some very critical investigations in the effort more fully to determine the cause of yellow fever. On March 5th he presented a most importaat paper at a meeting of the physicians in attendance upon a post-graduate course, at the Hospital. Its importance is derived from the fact that Professor Klebs was able, by means of microscopic specimens, to point out bodies which had not been hitherto described and which he does not as yet find elsewhere, than in organs of those who had died of yellow fever.

Having obtained portions of all the organs of two cases of yellow fever patients who had died of the typical form of the disease, he made from them a multitude of sections, and has spent months in their examination. He did not succeed in finding the bacillus described by Lanarelli nor the X bacillus of Sternberg, but he did succeed in finding peculiar bodies in the stomach, duodenum and liver of twice the size of red corpuscles. He believes they belong to the protozoa. He thinks their discovery due to the use of a new staining method which he has developed during the last month. Besides these structureless bodies, he found a true sporulating form with many sporules in the duodenum. These were found in both cases while control experiments gave negative results. These bodies have not before been discovered and described owing, no doubt, to the lack of a suitable straining method.

While Professor Klebs believes these bodies to be the cause of yellow fever, yet he distinctly states that he desires to withhold any definite claim until cultures and animal experiments can lead to positive conclusions. The discovery of these bodies will mark it as a most notable event, if, as the result of further investigation, they shall prove to be productive of the disease.

Diagnosis of Gastric Disorders.

At the last meeting of the Vienna Medical College Dr. Hammerschlag read a paper on the diagnosis of diseases of the stomach, in which he said that the proper examination of the gastric functions was a matter of importance and should extend to both the movements and the secretion. (Lancet, March 5, 1898.) The gastric juice varies according to the food which is taken and according to the time of day; it is investigated by analysing the gastric contents collected after a test meal and amounting to 50 c. c. or 60 c. c. A quantity exceeding 100 c. c. or the presence of portions of food remaining from the previous day indicates an abnormal condition of the function of secretion. The production of hydrochloric acid may be either deficient or excessive; the latter condition admits of two alternatives, one of them being marked by an increase in the amount of the acid above its normal proportion of about 1.5 per cent., whilst in the other the total quantity of the gastric juice, but not its relative acidity, is augmented. These two abnormalities are termed respectively hyperchlorhydria and hypersecretion. The symptoms of hyperchlorhydria are pyrosis, sour eructation, gastric pain, and sour vomiting; it is distinguished from excessive formation of lactic acid by chemical analysis and by the power of digesting starch. Hyperchlorhydria occurs in a great many disordered conditions of the stomach, as, for instance, in neurasthenia, in gastric ulcer and in cases of the excessive use of alcohol and tobacco. When the hyperchlorhydria is slight the pain is trifling and may be assuaged by alkalies, when there is an ulcer the pain is considerable, and when the disorder is of nervous origin the pain, unlike that due to an ulcer, is more influenced by mental emotion than by the food. In hyperæsthesia of the gastric mucous membrane, as met with in hysteria. chlorosis and influenza, there is intense pain after meals; in ulcer there is also pain after the ingestion of fluids. The treatment consists in the use of a 2 per cent. solution of nitrate of silver, a small teaspoonful of which is taken before meals. Patients who suffer from gastric ulcer vomit but rarely, and never when the stomach is empty, but the gastric crises in cases of tabes are on the contrary attended by frequent vomiting on an empty stomach, by hæmatemesis, and by pains which continue for several days and are independent of the food. In intermittent or chronic hypersecretian there is persistent formation of gastric juice. The chronic form often occurs in ulcer and neurasthenia; it is characterised by a painful feeling of hunger, by the vomiting of sour liquid, and by the disappearance of the pains after food. It, moreover, interferes with the mechanical action of the stomach and leads to dilatation. The stomach after fasting is also found to contain a large quantity of fluid colored green by biliverdin. Diminished secretion of gastric juice is characterised by dyspeptic symptoms, a feeling of oppression in the stomach, nausea, eructation, and anorexia; it has both an anatomical and a nervous etiology. In catarrh the secretion of mucus is increased and nervous dyspepsia is attended by neurasthenic symptoms. Deficiency of hydrochloric acid occurs in catarrh of long duration, in atrophy of the mucous membrane, in gastric neurosis, and in cancer. In the last case the lactic acid is increased in quantity.

Expectoration in Cancer of the Lungs.

Hampeln says that in the new growths of the lung the most important point, leaving the physical signs out of account, is the bloody character of the sputum. The hemorrhages are generally small, recurring two or three times, or they may persist throughout the disease, microscopically, while so far as the author knows, Ehrlich alone has been able to find true cancer fragments in the sputum, and while he admits there are no such things as characteristic cancer cells, he still holds that carcinoma of the lung may sometimes be diagnosed from the character of the cells in the sputum. Of the various cells occurring in the histological structure of the respiratory tract, only two would be likely to be confounded with the cells, the author thinks, speak for cancer. These are the small polyhedral, or cubical cells, from the lower strata of the bronchial and tracheal mucous membrane and the polygonal alveolar epithelium. Curiously enough, both of these occur but rarely in the sputum. Hampeln claims, then, that if one finds polymorphous, polygonal cells with plain nuclens and nucleolus, free from pigment (such pigmented cells are very common; the so-called alveolar cells) occurring in clusters or singly. especially if some of them are of the giant type, the diagnosis of neoplasm of the lung is justifiable.

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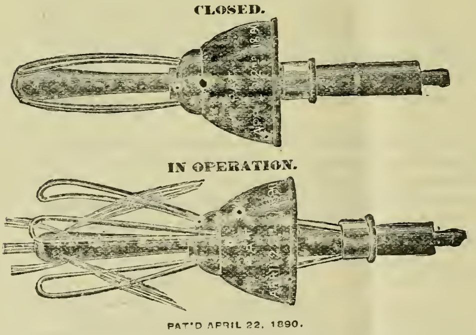
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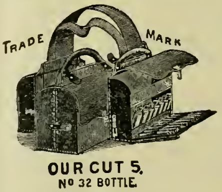
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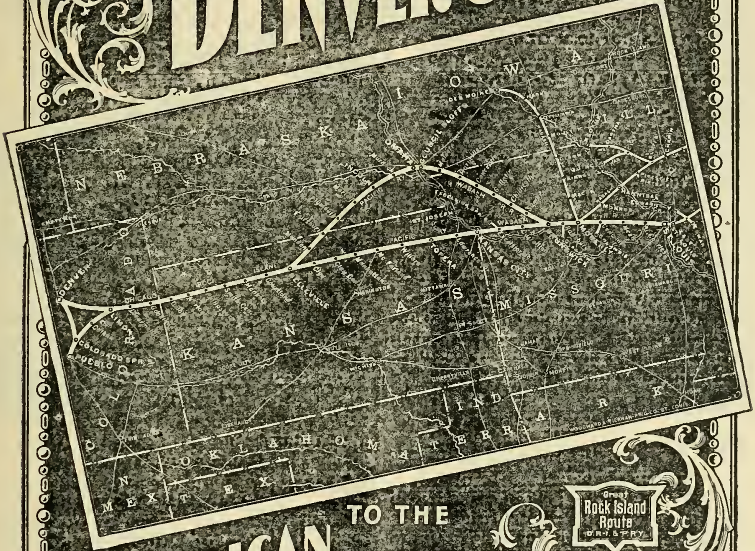

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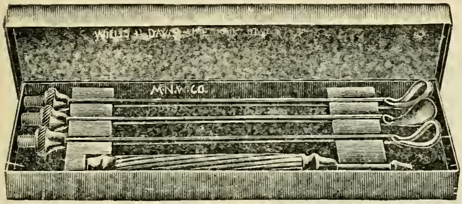

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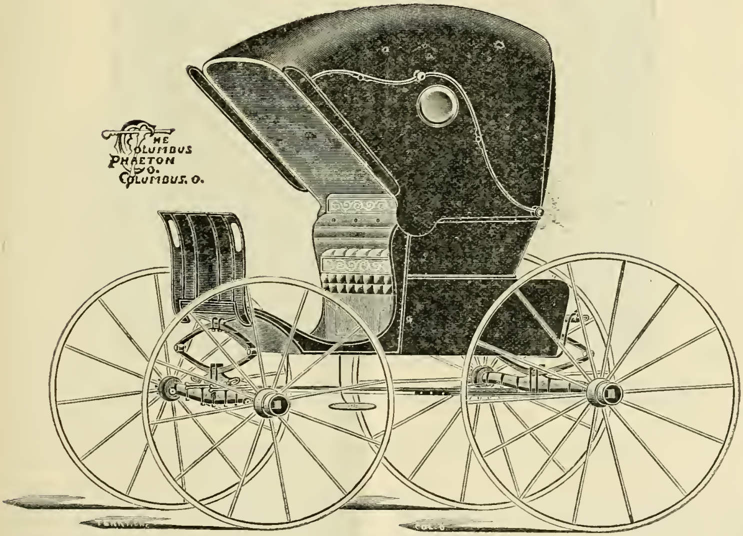
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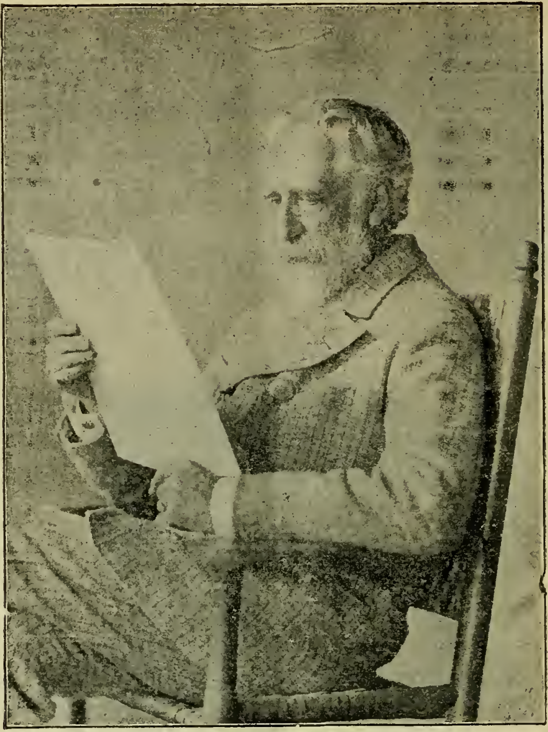

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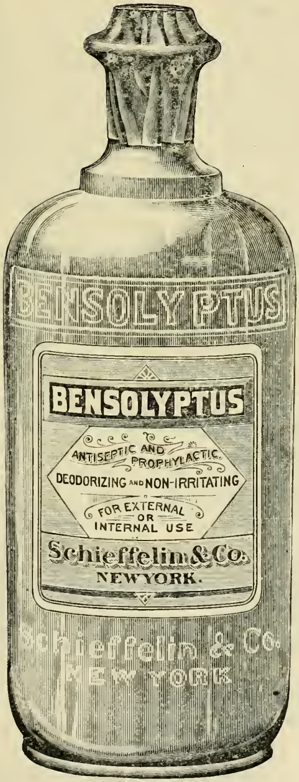
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Dr. Eschle in Professor Baumann's physiologico-chemical laboratory in the Medical Department of the University of Freiburg, found that Guaiacol Carbonate is the more thoroughly used up the smaller and more frequent the doses in which it is given. In phthisis, therefore, Eschle recommends the administration of a dose of 4½ to 7½ grains of Guaiacol Carbonate four times daily. (*Zeitschrift für Klinische Medizin*, Volume 29, 3 and 4).

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WHEATLAND TEXAS, Sept. 29, 1891.

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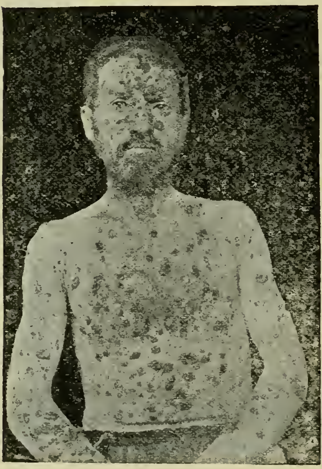

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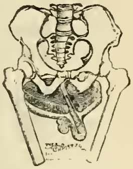

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Fig. V.—Semi-Reclining.

1st. Raised by foot and lowered by automatic device.—Fig. I.
2d. Raising and lowering without revolving the upper part of the chair.—Fig VII.
3d. Obtaining height of 39½ inches.—Fig. VII.
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11th. Affording unlimited modifications of positions.
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13th. Only successful Dorsal position *without moving patient.*
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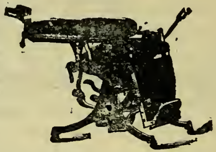

Fig. XVII—Dorsal Position.

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Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

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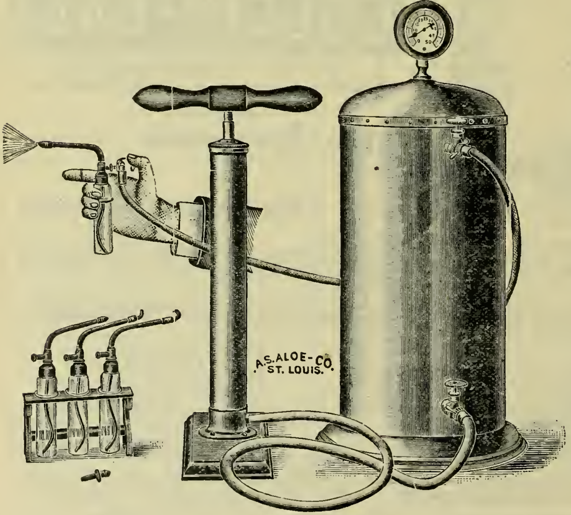
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The Charlotte Medical Journal.

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President's Address.*

FRANCIS DUFFY, M. D., Newbern, N. C.

Gentlemen of the Medical Society of the State of North Carolina:

In accordance with the rules of this Society, it becomes my duty to present to you an address on assuming the functions of the office to which you have done me the honor to call me.

Some of our presiding officers in our past history have discussed medical topics by inviting the attention of the Society to some chosen subject, others have looked over the field which we occupy and have advised according to their judgment, such action as was likely to promote the objects which we, as collaborators, are seeking to attain, while other addresses have been inspiring and elevating by sentiments expressed, not merely rhetorical and pleasing to the ear, but utilitarian in the highest sense, like a poem, which by stirring the emotions builds resolve, and has its fruition in the best deeds of men.

I desire to submit to your consideration certain matters which, during my connection with the Society, have occurred to my mind from time to time. First, as the necessity of increasing the membership and usefulness of our Society. It is obvious that all of the legislation regulating the practice of medicine and maintaining a higher standard of medical education in the State has originated in the persistent organized efforts of the North Carolina Medical Society. The same may be said as to the enactment of laws establishing the Board of Health, or in any respect pertaining to public sanitation. As the importance of these matters can hardly be overestimated, it is evident that anything tending to build up the Society and increase its power must be of corresponding importance. In this connection I call attention to the fact that since written examinations have been adopted by our Medical Examining Board, it has been impracticable for licentiates of the Board to join the Medical Society during the meeting at which they were licensed. Reference to Society annals will show that a much larger number have been licensed than have become members of the Society at the same session. These young men form the best element from which to recruit the ranks of the Society. When they miss the first opportunity, they do not, as a rule, have the same interest in public medical affairs as non-members, that they would have as members of the Society. They do not often go long distances to join, but wait one of the migratory incursions, which does not usually occur oftener than once in a decade. If our Medical Examining Boards would hold their meetings long enough before the Society met to finish their examinations and reports thereon, before the adjournment of the Society, these disadvantages would be obviated, and at the same time the law complied with, which requires that the Boards should meet at the same time and place as the Medical Society.

I believe it would be well to remit the usual initiation fee to those who join during the year in which they receive their licenses. This, instead of being a loss to the Society, would likely be a gain, as the annual dues in $2\frac{1}{2}$ years will amount to $5.00, while the average length of time which elapses before the joining of those, who join at all, is much longer than that period, while many never become members of the Society; besides many meritorious young men have spent all their money in obtaining medical education and license, and have not even $5.00 to spare at the time they have to equip themselves for practising their profession.

There are other reasons than those I have touched upon, why the way should be made easy for young men to join the Society. The first year of professional life is the formative stage of professional character. The moral sense and those delicate instincts, which point to rectitude as their polar star, are not strong alike in all, nor have the home influences and other sources of training which build upon the foundations of character been the same. Young men of various bias, without any knowledge of the Code of Medical Ethics, enter a profession which from the time of Hypocrates has had its Ethical Code, and which, as it is to-day, is the outgrowth of the wisdom and experience of generations of practitioners who stand upon that delicate ground where meet self-interest and self-abnegation. These first years of professional life are, with many, associated with necessities which naturally foster carelessness. Is it any wonder that there are so many deviations from the paths of moral and ethical rectitude?

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*Presented at the May, 1898, meeting of the N. C. Medical Society.

The influences of a Medical Association is very beneficial in forming and promulgating rules to harmonize and make pleasant the business relations of medical men; in stimulating the efforts of co-workers, by which they become co-educators and in inspiring higher ideals from which spring higher realizations.

I trust it is not amiss to make further suggestions as to the work of the Board of Medical Examiners, for although the Legislature has given them full power to fix the standard of qualification and make by-laws governing their own action, the elective power in choosing these boards is vested in the North Carolina Medical Society, and the sentiments of the Society would naturally be reflected by the Boards chosen.

It has been and is the custom to admit to examination any and all persons presenting themselves. The only requirement being the easy-to-be-obtained certificate of moral character, and the merit of having existed 21 years. If by any means the applicant can answer a certain percentage of questions propounded, he obtains a license founded on the declaration that he is found qualified to practice medicine in all its branches.

In those parts of the world where the standard of medical education is highest, men are admitted to examinations only after a sufficiently long training, not only didactically, but clinically and in the laboratory. The mere correct answering of a few questions on a branch of medicine, regardless of antecedent practical training or experience, cannot be sufficient evidence of qualification. To obviate this difficulty it has been proposed to have clinical examinations. This is hardly practicable. Sufficient material of different kinds is hard to obtain. The diagnosis of any given subject once made, would soon become known to all, and even if the candidate failed in the clinical test, he yet might average the per cent. necessary to obtain license. An examination which ignores the candidate's past as to training would require to be long and tedious, especially if clinical and laboratory features are included. Better far trust something to schools which are equipped for giving all necessary training, and require all candidates for examination to give evidence of sufficient clinical and laboratory experience. If the Examining Board have not authority to regulate these matters, our law ought to be amended.

Another matter of importance may be harder to regulate, yet worthy of the attempt. Namely, the interchange of courtesies between the States. At least those bordering on North Carolina. Where a sufficiently high standard is maintained by any State Board its licentiates might very well be admitted to other States. It seems an unnecessary hardship, for instance, for a physician living on the border of North Carolina and Virginia to have to pass the Boards of both States.

It may be like the re-threshing of old straw to refer to the importance of public hygiene, and the necessity of procuring legislation for the promotion of that object, but as that sort of straw has yielded so comparatively little of the grain which it is capable of producing, I am impressed that we should continue to thresh. As far as we are concerned, I do not feel that it is necessary to remind this body of these things, much less to offer instructions, but with the people in general, as well as their legal representatives, it is different. They have not yet found out the best way to spend their money with the medical profession to get the best returns. With them, the time honored function of the doctor is to apply remedies to diseases, and according to the law of supply and demand, the physician usually equips himself for the performance of that function, and by solicitation and practice grows in that direction. It is not my purpose to derogate this part of the physician's work. The world would be much poorer without the legitimate use of opium, chloroform, cocain, quinine, iodine, mercury and other remedies. If the evil is upon us, that which removes or mitigates it will continue to be appreciated and sought, but where cure can save its thousands, prevention can save its tens of thousands, and it is a crying necessity to-day that this fact should receive both a theoretical and practical realization by the whole people.

Before we can hope to leaven the whole lump of the body politic let the physician scrutinize himself and the field that he occupies, to see how far he is the exponent of true science, or to what extent he typifies or justifies a recent cartoon that represents Nature and Disease in fierce combat, while the doctor comes up, blind-folded, and with his cudgel strikes right and left, now striking the disease and now the patient.

The history of the application of therapeutic measures (drugs mainly) does much to justify this cartoon. It is not necessary to more than refer to the incantations and other absurdities of ignorance and superstition which were in keeping with the dark ages in which they were practised. Within the memory of the men of to-day, famishing fever patients have been deprived of water by their misguided attendants, who were governed by tradition and custom, rather than by the dictates of common sense, and the unerring cravings of nature. Even the foul air of the patient's room was carefully confined by closing the doors and windows, and perhaps his strength still more reduced by copious blood letting.

My mother related to me an experience in her early life. Her father, living on his plantation, was stricken with fever, and after some days or weeks of bleeding and famishing he died. A number of his negro slaves were also stricken and under the same management went the same way. One servant begged to be let alone, and not subjected to the treatment. His wishes were gratified and he alone recovered. I remember the old man well. He lived to advanced age.

Homeopathy and a number of other pathies, in spite of their absurdities, had fruitful soil in which to grow. They were less aggressive on the persons of the suffering sick, and if they gave no aid, were not so likely to hinder natural recoveries, and so the regular profession looked on, learning from experience, grew in knowledge, by its natural evolution, and became wiser than their critics. But the medical millennium has not yet come, nor are the days of mal-practice past. Even among operative procedures, the fads of gynecology and the exploits of those seeking fame by startling measures in other fields require constantly to be challenged, to show cause why they should be discontinued. If the novice takes up an optimistic modern work on materia medica, and studies the physiological effect of drugs and their therapeutic application, he might easily be impressed with the belief that drugs could control every pathological process, and remove every morbid condition. Coupled with these studies, he is very much surprised to find that works on practice of medicine (perhaps especially those of the scientific Germans) will give exhaustive descriptions of disease, pathology, etiology, clinical history, diagnosis, and prognosis, but beyond general reference to hygiene, nothing specific as to treatment. The fact of the limited power of drugs, to work beneficial changes, begins to dawn on him, and that even those that are of undoubted value are like edged tools, and require careful handling. Even our comparatively harmless quinine, which so effectually destroys the malarial plasmodium has been made to do its share of harm. On no less authority than the German professor, Leibermeister, 40 grains at a dose have been given to typhoid patients. Within recent years the coal tar antipyretics were hailed with delight. Fever killers had come at last! A Baltimore professor told his class that Antipyrine was what he had been praying for. I think you will agree with me that more patients than fevers have been killed by them. And these remedies are in rather common use among the laity.

Not many days ago, I visited a child to whom the mother had administered a dose of acetanelid before the cold stage of an intermittent fever had disappeared. Alarming symptoms followed. Another case came under my notice, where a farmer had administered a dose of acetanelid under similar circumstances. The child died, apparently from its effects.

Not many years ago, the doctrine was promulgated that disease, a condition of lowered vitality required to be combatted by copious administration of alcoholics. This fascinating theory had many adherents and did much harm. In the field of dietetics, we went from starvation to stuffing. Even to-day an American text-book advises that a typhoid fever patient may take as much as six quarts of milk a day, a quantity that has been shown by physiological experiment to be one-third more than the full digestive capacity of a healthy man, eating nothing else and digesting all the day. We have no infallible guides. Our reason must challenge every theory, and our experience prove all things, and hold fast to that which is good.

But why this arraignment of a profession which, in the matter of education, conscientiousness and faithfulness, compares favorably with any on earth. It is to lament that our most uncertain and dangerous functions are most in demand; that millions of dollars are paid by the people for the practice of medicine as it is being done, and as to some little extent has been indicated in the foregoing pages, while our best functions or capabilities are dwarfed by disuse and neglect. The public health officer would have to be a missionary at his own expense, while a premium is put on disease. This is not a mere perverse and unnatural choice of the people. They are as wise as we are and will seek their own good as they conceive it to be. We are of them, and differ only as regards these matters in knowledge.

If they, the masses of the people, knew as much of the sources of the disease as the educated, better element of physicians, who do you suppose would be in the van of the procession to stamp it out? The man who reaps a harvest when disease runs riot, or the man who pays the bills? That the people should become possessed of this knowledge is the prime requisite, for should we obtain such legislation as in our judgment was all that was necessary, and such appropriations as would leave our Board of Health unhampered in the discharge of their functions, the laws would be largely inoperative if lacking in popular sympathy and support; besides many of these things would depend on habits of individuals which legislation could not control. It is to be, then, chiefly a matter of education; and how to accomplish this, is the problem.

If the individual physician in his professional and social contact with his clients sows the seed, if our Boards of Health, local and State, continue and even improve upon their good work, and if our schools, from the lowest to the highest, teach the rudiments of the science of health, and unfold to the mind of the pupil the necessity of expert work in the prevention of disease, knowledge must grow. And if our State Society in its organized capacity, with the courage of its convictions, does not hesitate to urge necessary legislation, they will have discharged their duty, and may soon accomplish much.

Typhoid fever, which is perhaps entirely preventable, causes the State the loss of many a victim and much treasure. Current knowledge or opinion ascribes its propagation almost entirely to intestinal discharges of the infected. Prevention would seem to be in easy reach, yet it goes on. Personal observation leads me to believe that disinfection of the dejections is not accomplished in one-half the cases. Many cases of continued fever are not considered typhoid fever, which are most likely of that nature. I will not discuss the subject, but pass it by with the recommendation that the dejections of all fever patients be disinfected. The public should be instructed to do so, even where physicians are not employed. as they often are not, and it may be a fit subject for compulsory legislation. Our Board of Health has done a good service in the matter of prevention of malarial fevers by use of deep well and cistern water. But a properly managed cistern is an exception. Infectious germs are carried from the atmosphere or house tops to the cistern. Filters, often imperfect, remain unchanged, until over-saturated. They become thus the source of infection. Tuberculosis continues to be propagated by the expectoration of the infected without hinderance, except, perhaps, in one municipality in the State. Milk is sold from any kind of cow which will afford it, Diseased meats are sold in the markets. Ice is imported from impure sources and people believe that freezing purifies it, which is true only to a limited extent, and may be manufactured from impure water. Any kind of canned food is sold that any one will buy. There is no check on adulteration or fraud as to what the people eat or drink or take as medicines, patent or proprietary, save their own unskilled judgment, warped or blinded by alluring advertisements and unblushing false assertions.

The physician often finds that a patient unable to pay him has raked up money enough to pay an exhorbitant price for worthless medicines or appliances. Druggists practice medicine Spectacle venders, ignorant or unscrupulous, still practice this branch of the medical art, though a medical college graduate has first to pass our State Board. Dangerous drug habits or other evil consequences arise from headache cures and the like. Beverages (coca cola for instance) sold from the soda fountains should be subjected to analysis and the people advised or the sale interdicted if necessary. I refrain from further specific references.

The doctor of the future will probably differ more widely from the one of to-day than the doctor of to-day differs from the one of the past. We know something of him of the past and present and that the tares have been mixed with the wheat in varying proportions. With prophetic eye we may contemplate him of the future, but we know not how far distant, or how near at hand. The poet or philosopher may by inspiration point the way; the scientist by experimental research may demonstrate, still events occur only in the fulness of time, or that period in the evolution of the human race, under the sovereignty of God when it is possible to achieve that which before was not attainable. But the sword of the doctor (his weapons of warfare on disease or the diseased) will be changed to the pruning hooks, which cut away the poisonous branches upon which grows the deadly fruit.

In the propagation of the race, in the construction of human habitations, in clothing and in food, in labor and in recreation there is a rational wisdom, and in connection with these there should be skilled advisers. If physic should be thrown to the dogs, will the doctor's occupation be gone? Not when he has proper surveillance over everything that effects the health of the people. In his present status of equipment he could do much more than he does or is permitted to do, but when the new order of things creates the demand, medical colleges will not condone ignorance of chemistry and physics even as now imperfectly taught, nor make side shows of the microscope and laboratory. These stones which are well nigh rejected by the builders of medical education will become the head of the corner. These things will be *sine qua non.*

North Carolina has been called the Rip Van Winkle of States; still she has been known to arouse from her lethargy. In the matter of legislation regulating the practice of medicine, she was (through the influence of our Society) in the van of the procession. And in this historic city, (Mecklenburg county,) May 20th, 1775, she sounded the bugle call as the pioneer of liberty. It is fitting that we should here resolve to push still further the lines of human progress.

The Surgical Treatment of Appendicitis.*

By F. T. MERIWETHER, M. D., Asheville, N. C.
(U. S. A. Retired.)

Before entering into the discussion of the treatment of Appendicitis, a disease which causes more deaths than all other abdominal lesions combined, and which Morris says "from reliable data causes annually 50,000 deaths in the United States alone," it would be well to run rapidly over its division into classes, and very briefly its pathology. First we have an Acute Catarrhal Appendicitis, merely a catarrh of the mucous follicles of the organ. Secondly, a Chronic Catarrhal form, accompanied by a thickened and sclerosed condition of the mucous coat, which may, or may not, be attended by acute exacerbations, extreme congestion and local adhesions. If this condition exists for some time, particularly if the acute attacks are frequent and severe, we will likely find several small strictures in the calibre of the Appendix, forming one or more little pouches, which, as the disease progresses, become more and more shut off from their communication with the intestine. These pouches usually contain thickened mucus, fecal matter, etc., and as their openings become closed, the mucus, fecal matter, etc., being unable to escape, an irritation is set up, causing the appendix to contract and attempt to discharge these masses. Being unable to do this an inflammation is set up. If no infection is present, usually this subsides, the vessels taking up the water but leaving the solid particles, salts, etc., of the contents of the pouch. Then we have the foundation for a concretion. This type, if it exists long enough, usually terminates in the third division, Perforative or gangrenous Appendicitis. When the concretion becomes of some size the continual motion of the Appendix in attempting its extrusion causes an erosion of the walls of the Appendix, infection of the eroded spots, and, if the concretion has become large enough, an occlusion of the vessels of the organ distal to to the concretion, causing thereby a gangrone. Perforation may or may not occur, but local peritonitis is always present. The fourth form is the chronic Fibrous or Fibrinous Appendicitis, which is often an accompaniment of of the chronic catarrhal form. Here we have an increase of the fibrous tissue of the organ, gradually encroaching upon the normal tissues, sometimes obliterating entirely the calibre of the organ and impinging upon the nerve endings contained therein. One type of this class is the form Appendicitis Obliterans. The pain in this form is often severe and more or less constant, and is caused by the impingement upon and constriction of the nerve fibres.

The last form is that of a Septic Appendicitis which may be either acute or chronic. In this condition we usually have an erosion of the wall of the appendix, caused by a small foreign body, concretion, etc., which falls back into the intestine, or by injury, or possibly the infection is a primary invasion of the mucous membrane by bacteria. Once the mucous coat is destroyed, an infection takes place, sometimes only of the Bacillus Coli Communis, or it may be of Streptococci, or any or all of the microorganisms which may be in the intestine, and which may have gotten into the Appendix. There is a leakage through the walls of the Appendix of the toxins generated, causing a local Peritonitis, a gradual invasion farther of the wall by the organisms present, frequently a formation in the calibre of the organ of a minute amount of pus, until by gradual advance of the necrosis a local infection of the Peritoneum takes place and an acute attack supervenes, accompanied by a local or general peritonitis. This is the most deceptive form to diagnose, for its history is that of a mild catarrhal form usually, with but little pain and very little rise of temperature, even during the acute exacerbations. It gradually progresses insidiously until the peritoneal infection takes place, when we often have a fulminating form of peritonitis.

In the Perforative, Gangrenous and Septic forms an operation is indicated to save life, and in the fibrous and chronic catarrhal forms it is indicated for the welfare and comfort of the patient, with a fair prospect of requiring an operation to save life at some future time. It is only therefore in the acute catarrhal form that an operation is not indicated. The almost impossibility of diagnosing this form with certainty may be seen by any one after a thorough study of his cases. In fact all authorities lay stress upon the fact that attention is not directed to the appendix until the peritoneum is involved, hence that in true acute, catarrhal appendicitis no discomfort is felt, and, that we only recognize appendicitis by the peritonitis accompanying it. I take the liberty of here reporting the last two cases I have operated upon, one being of particular interest because of its history and the conditions found in the abdominal cavity.

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*Read before the Buncombe County Medical Society, April 4th, 1898.

Case I. Female, aged 27 years. History of an Ovaritis on both sides which had been treated for some time by a local physician. She has had more or less constant pain on right side. not severe, accompanied with what she thought was indigestion. At times she would have acute exacerbations during which she would have nausea, some vomiting, constipation, anorexia, usually with slight rise of temperature. These attacks would occur every two or three months, and would last two or three days. Pain was sometimes referred to the left side. Menstrual flow normal. When I first saw her she was complaining of pain over right iliac fossa, most marked at McBurney's point. Right abdomen rather tense, particularly over lower third. Bowels constipated and slightly tympanitic. Tongue coated. anorexia for several days. Last menstrual period had passed without any discomfort. Temperature 99, pulse 80. Dorsal decubitus preferred, lying on side being painful. I did not think an operation was necessarily immediately indicated, so I advised giving sulphate of magnesia freely through the night. Her bowels moved freely after a few doses of the salts had been taken and the next morning she felt much better. Her temperature became normal, though her pulse remained a little rapid. Her condition seemed to improve somewhat, but the feeling of discomfort remained. After watching her for four days, and not being satisfied with her condition, I advised an operation. At the operation, which, by the way, was the quickest one I had ever done, it only being fourteen minutes from the time we took her from the bed until she was put back, the Appendix was found dipping into the pelvis, twisted on itself by adhesions, and adherent to the right ovary, There was a slight local peritonitis, particularly marked just interior to the cæcum. This was a commencement of an attempt of nature to wall off what might afterwards terminate in a local abscess. After the removal of the appendix the incision was closed without drainage. The patient was put to bed with a pulse of 72, and she never showed the slightest sign of shock, this being due to the shortness of the operation. She had no bad symptoms following, in fact did so well that I allowed her to go to her home from the Hospital, where she was operated upon. upon the 8th day. The appendix was thickened somewhat, was congested, and in its calibre was found a small concretion. There were three strictures, and an erosion of the mucous membrane near the concretion. There was quite a little debris in the canal, which contained streptococci, and bacteria were found in the muscular wall of the organ.

Case II. Female, age 20 years; works in steam laundry. History was that of having had during the last three years several attacks of what she thought was indigestion, with colic, which was usually relieved by morphia. Her history, however, was rather indefinite, except the fact of her having had pain and her not being in as good health as when younger. The afternoon before I saw her she drank a large amount of cold water, and half an hour afterwards was seized with a colicky pain about the umbilicus, with some nausea. Her bowels moved that night, but the nausea continued, the pain increasing, its locality moving downwards toward the right iliac fossa. I saw her at 7 a. m., the next morning, when her pulse was 120, though her temperature was normal. Great pain in abdomen, particularly about the umbilicus. There was some general tenderness over the entire abdomen, though the recti muscles were not particularly rigid. At noon her pulse was 140, her temperature 101. The pain was somewhat better, and by night she was quite comfortable, though the nausea had continued, and her pulse was 140, and the temperature was 102. The next morning she was fairly comfortable, her bowels had moved freely during the night from drachm doses of Sulphate of Magnesia, given every two hours during the night. Her pulse was 120 but good, her temperature 101. Very slight tympany, no nausea, tongue clean. Abdomen still tender and the right rectus was becoming rigid. During the day she took milk freely and felt quite comfortable. During the day Doctors Battle, Cheesebrough, Glenn and Thrash saw her in consultation. At night her pulse was 130, her temperature was 102. Her general condition seemed about the same, she was feeling strong, her bowels were moving freely from the salts which I had kept up, and in fact her condition seemed favorable. She was given opium suppositories (1 gr.) during the night and rested well. The next morning her pulse was 110, temperature 100. Abdomen seemed a little softer, though the was still tender. Her pulse rate and temperature increased through the day, at night being 148, temperature 102. Tongue was becoming coated though there was no nausea. Pain was now most marked about the umbilicus. The next morning, that of the fourth day her pulse was 108, the temperature being 98$\frac{3}{4}$. Her bowels had moved three times during the night and she felt very comfortable. Three opium suppositories, each of one grain, had been taken during the night. No nausea, and she has taken chicken broth through the night with relish, and asks for and insists upon food. At noon her temperature being 100 and pulse 124 I insisted again upon operating, which was done at 3:30 p. m., assisted by Drs. Baird, Pearson, and Cheesebrough. As soon as the peritoneum was nicked, free pus with a fecal odor gushed up. Appendix dipped into the pelvis, its direction being S. E. pointing towards the rectum. It was very adherent, sloughing and gangrenous. There was practically no attempt on the part ef nature to wall the pus off, for free pus and fecal matter was found among the intestines. There were two perforations in the appendix through which fecal matter was escaping. There was a general purulent and plastic peritonitis present I dissected out the appendix and necrotic tissue, tied the appendix off as close as possible to the cæcum and buried it in the canal of the cæcum with a purse string suture. The upper angle of the incision was closed, but practically the entire wound was left open. After washing out the abdominal cavity thoroughly, gauze drains were placed in all directions and a voluminous dressing applied. The patient came off the table in good shape, and reacted very nicely. Her temperature the next morning was normal, her pulse being 90. The gauze was removed frequently, it fulfilling its office of draining very well. She convalesced uninterruptedly, without a bad symptom, and was discharged upon the twenty-eighth day.

I have seen during the past three years quite a number of cases of appendicitis, some not requiring an immediate operation, others objecting to one, but with the majority of these, recurrences have been the rule. Two have had pus in the sides, which emptied into the bowel. These cases, however, are far from being well, in both of them the fistula closing and the pus reaccumulating from time to time and causing trouble. On the whole I do not think I have been eminently successful in the medical treatment of appendicitis. Nor do I think any one else has. We record as cures many cases which recur, many who drop into other hands for treatment, many who are improperly diagnosed *after* the first attack, if not *in* it, and I do not believe any one can honestly say that he is in favor of a strictly medical treatment of this diseaee. Conservatism is so often a mask behind which we attempt to hide our ignorance or indolence. The acceptance of new principles or new facts involves a certain amount of energy and work, our thoughts and ideas must be readjusted, and this requires labor and efforts which many are not willing to give.

I think we may safely say that 75 per cent. of the cases of appendicitis will get over their attacks without an operation, but when we consider the loss of time, the suffering and worry with the recurrences, and the possibility, always present, of an acute exacerbation which cannot be benefitted by a late operation, I do not see any thing creditable in these figures. Not more than 1 per cent. die from the operation *per se*, and it is probable that all cases who die after the operation (not from the operation as it is customary to say) would have died anyway. There is a grea. deal of talk about the unnecessary removal of appendices, but I doubt if there was ever an appendix removed which was healthy. Abbe Morris, Bull, Richardson, Pozzi, Deaver, and in fact all surgeons whose opinions are authoritative agree in this, for there must be a pathological condition present to attract attention to the organ and make the operation possible. It may be that upon inspection the appendix looks normal, but when microscopic and bacteriological examination is made, it will show differently. And here I wish to report a case recently operated upon where an appendix was removed, and though it looked normal, both streptococci and tubercle bacilli were found in its calibre. I believe that it is really conservative to operate early in all cases, and that it is a bold measure to delay. It is safer to operate than to delay, or as Morris expresses it "the dangers from the operations of a surgeon are less disastrous than the dangers from the operations of the bacteria." Some who are opposed to early operations say wait for pus to form, but I think that mos. of us here would prefer not to have pus in their bellies, even if walled off, when the operation was done. Deaver says that he has never seen a life lost when the operation was done during the first few hours following the onset. Richardson says "without doubt the best treatment, could it be applied during the first hours of the disease, would be immediate exploration, and removal of the appendix." Pozzi says, "every time that an appendix gives rise to local and general symptoms, no matter how severe they may be, the organ should be removed without delay. Either these accidents will immediately put the patient's life in danger, or if they momentarily get better, they leave the patient with an infirmity which is often disagreeable and always menacing."

If, however, for any reason we see fit to treat these cases medically, the first indication is for purgation. Personally I think the sulphate of magnesia meets the indication best. If the stomach is upset calomel may be substituted, but at all events move the bowels. The patient should be kept on liquid diet and cold applied to the abdomen, preferably an ice pack, or a cold water coil. Ice is undoubtedly a local anæsthetic and to a certain extent an anodyne, and in these cases I know of nothing which gives so much relief from pain. Horwitz has recently called attention to the possibility of hastening the absorption of the fibrinous deposit sometimes left after acute attacks of appendicitis by the giving of the proiodide of mercury in tonic doses.

The technique of the operation will vary according to the case. In a majority of cases the McBurney incision will be the best, though originally McBurney did not recommend it in suppurative cases. The appendix should be removed even in abscess cases, if possible, for quite a number of cases have been reported where, after the opening of the abscess, and after the wound was healed, recurrences of the original appendicitis have occurred. The appendix should, when gangrenous, be cut out entirely, and the opening in the cæcum closed with Lambert sutures. In cases where the base of the organ is fairly healthy I have, after tying off the mesentery and ligating the base of the appendix, cut it as close as possible to the cæcum, and with a purse string suture taken in the cæcum about a fourth of an inch from the appendix, buried it in the canal of the cæcum inverting the appendix like you turn the finger of a glove inside out. If any raw surfaces are left the mesentery of the appendix may be used to cover them, and when there is pus outside of the appendix always drain. If there is a general peritonitis I believe in thorough irrigation with a hot salt solution, and leaving the wound open for drainage. In the suppurative case reported above this was what saved the girl's life. Some object to irrigation on the ground that it tends to disseminate the infecting material throughout the abdominal cavity. The researches of Byron Robinson upon the peritoneum shows that the currents of the fluid which may be contained within the abdominal cavity tend to carry all foreign substances upwards towards the diaphragm, and also that the absorbing power of that portion of the peritoneal surface is much greater than of any other portion. Therefore, after removal by irrigation of all the infectious material possible, in leaving a large amount of saline solution in the cavity we assist nature in disposlng of it, by diluting it and carrying it to these stomata where they will be absorbed.,

DISCUSSION.

Dr. Minor.—Dr. F. T. Meriwether and myself are fairly in accord on this subject, though perhaps I am not quite so radical in my views. However, the difference I would make with the doctor would be one of degree rather than one of kind. I believe in operation in appendicitis, but I do not believe it necessary to always interfere soon, or always to interfere until an interval, as I believe the doctor does. My position in being called in any case of appendicitis is waiting as far as I deem it safe for those recoveries which he says occur in 75 per cent. of cases, and which I do not really call recoveries, and then an operation in the interval. The doctor will agree with me, that in any case of surgery, where possible, to operate in non-inflamed or chronically inflamed rather than acutely inflamed tissues. The pulse rate, it seems to me in my rather limited experience, is to be held important to go by, rather than temperature, as he reports in the case to-night, but normal pulse makes always a good patient. I was called the other day in a case of appendicitis, a lady whom I have urged for four months to be operated on in the interval. She has had five attacks in the past, and has before been urged to be operated upon. The attack came on after some imprudence of diet and over-exertion, and for the first twenty-four hours I thought certainly we would have an operation on our hands. The first thing that made me feel fairly safe was the fact that her pulse came down to nearly normal. It was rather the relation of the high pulse and the high temperature at first that alarmed me. The case is almost entirely quiescent now that the amount of temperature, which during the attack increased very much has also gone backward, and I am doing my best to urge upon her an operation in the interval. That patient is not cured. I believe that possibly ten or even twenty per cent. of cases of appendicitis so treated will remain cured, but the number of recurrences is very large. I am glad to say that not simply surgeons, whom we expect to advocate early operations, are coming to that view, but even so great a physician as Dr. Dieulafoy, of Paris, has also taken that view, and not more than a year ago came out in an article advocating operative treatment altogether, ending his article with the statement that there is no medical treatment for appendicitis. As regards the question of sulphate of magnesia or morphine, I agree with the doctor as to magnesia, but in certain cases I find very good effects from morphine. In this recent case sulphate of magnesia was entirely ineffectual. There is one point about which I disagree with the doctor, and that is his desire to search for the appendix. I believe where the appendix is visible, or where by slight search we can find it, it is all right to remove it, and not simply by ligature, but by the method the doctor speaks of, but there are a great many cases where the appendix cannot be found, where to find it means breaking down of adhesions, and despite the fact of the great danger of leaving the appendix I would rather take that risk than the greater risk of attempting to remove it.

Dr. James A. Burroughs.—I listened to Dr. Meriwether's paper with a great deal of interest. I am doing very little surgery for the last few years. I used to do a little, and operated at one time for appendicitis. The last case I treated was a case of long standing, with a large pus sac. I am glad to see that there is a general tendency in the last few years towards intelligent conservatism. There has been a great deal of recklessness in regard to operating for appendicitis, which I am glad to say is on the wane. I noticed the other day an article in one of our journals by Van Hook, in which he stated that there were more deaths lost in suppurative appendicitis, in say a certain number of cases, by amateur operations, than there would be where the cases were left alone. My experience has been that with the palliative plan of treatment in a great many instances attacks do not recur. I can call to mind a good many cases under my care, one case in a physician twelve or fourteen years ago. He told me he had had a violent attack a great many years ago, and he is now almost entirely recovered. Our assistant deputy clerk has had several attacks, and for the last three years he has not had an attack. I have known of several instances where there was no return, so I must say I am not in favor of cutting a man's abdomen open every time he has a little pain in his intestines. I believe in being more conservative. A great many cases operated on have died in inexperienced hands, and if they were treated on the expectant plan. as Van Hook says, they would probably be alive to-day.

Dr. C. P. Ambler.—While I am not engaged in this line of work, and have nothing to add to the paper, it has had a very peculiar interest to me, from the fact that it was only since weeks ago I had an attack of appendicitis, and I believe this week I had another attack. I believe in surgery, and I believe in surgery for appendicitis most decidedly. I am sorry that we have not some means of arriving at an absolute diagnosis of what the condition is. If I could satisfy myself I am simply having catarrhal appendicitis I would sleep better at night. However, I don't intend to be cut open if I can help it; that is not attractive either, but I have made up my mind, and that thoroughly, that if I have another attack, or the beginning of another attack, I am going to be operated on without delaying any longer. I certainly would advise it in a patient of mine. I think it would only be common sense to do so, and I propose to take my own medicine. I think Dr. Meriwether has given us an excellent paper. I have been reading everything I could get hold of lately on appendicitis, and I don't believe I have ever seen an article on appendicitis which has placed it in so clear a light as the doctor's paper has to-night.

Dr. J. A. Watson.—I have enjoyed the doctor's paper very much indeed, and found it very instructive. My experience with appendicitis has been very limited. I have operated a few times on cases that reached the suppurative stage and were circumscribed. The operations were very simple in those cases, and I had very little trouble. I fully agree with Dr. Meriwether in his opinion as to the necessity of surgical treatment early, and I should not hesitate to advise an operation in any patient of mine who had had an occurrence of appendicitis. I think if one pursues a waiting course they had better continue it on; after waiting a very short time they had better continue to wait. The surgical procedure I endorse fully, and would advocate early operations.

Dr. Isaac Robb.—I would say that in my practice the patients have been very kind to me by calling somebody else. I have never had the bad luck to have a bad case of appendicitis. I was thinking the other day that more than likely I had run across one, and I called Dr. Meriwether in, and he persuaded me that it was not going to be a severe one. That is the nearest approach I have had to one.

Dr. James Sawyer.—I would like to make one remark on the use of morphine in appendicitis. Of course I have not had any experience myself, but I have seen quite a number of cases, but we have to be very careful in giving morphine before the symptoms are well marked, otherwise the use of morphine is apt to be misleading before we master the symptoms. That is the great danger in the use of morphine.

Dr. C. L. Pearson.—I certainly have enjoyed the paper very much, and there is only one point which I wanted to bring forth, and that is this. It was in regard to operating in the interval between attacks. I believe in early operations in appendicitis, but when we have a subsidence of the symptoms, and a return to normal of the pulse, and indications that the attack has subsided, I believe in waiting until another attack occurs. I do not believe in subjecting the patient to an operation in the interval. I think it is better to adopt the expectant plan, but I strictly approve of operations where we have severe indications, and a positive sign of local peritonitis, and the pulse rate and temperature indicating the possibility of a lacerated form of appendicitis. I remember the first case I had after coming to Asheville was a case that had gone on for four or five days before I was called in, and the mother thought the little boy had an attack of colic, and consequently was dosing the child herself. I saw the child in the evening, and suspected or thought it was appendicitis, and the next morning advised consultation, and called in Dr. Meriwether, and he confirmed my diagnosis of appendicitis, and as early as possible the operation was performed, but it was a case of gangrenous form of appendicitis, with peritonitis, and I think if I had been called in earlier there is no doubt that the life of the patient would have been saved, but that was an instance where the waiting was too long, not on the part of the physician, but on the part of the parent, and I think in a great many cases where the physician or surgeon waits, and adopts the expectant plan, we frequently wait a little too long and lose our patient.

Dr. E. R. Morris.—Dr. Pearson brings out quite an important point, that is about the parents thinking it is a case of colic. I think we often see colic in children, and when we find children and babies crying and squirming from pain we can probably call it colic and be safe, but I do believe that when we find these cases of so-called colic in adults and older children after they are eight or ten, and recurring every three or six weeks, or six months, or two years, we had better call it appendicitis. Again, I think that several of the doctors are quite right in advocating early operations, and operating at the beginning of the attack. I cannot see why a surgeon or doctor would wait to operate after the trouble has subsided entirely, that is, unless there was some special condition more than just simply to have a normal temperature, and especially, I think the surgeon ought to operate the very quickest minute possible; but as one of the doctors says, if a patient has appendicitis once there is no positive proof he is going to have it again, and you had better wait and see, and if you are going to operate you had better operate the first hour possible.

Dr. C. L. Minor.—I want to speak again of operating in the interval. I believe in cases where you are to operate, operate early. I don't mean in a case of appendicitis, when I am called in, I am going to put it off and operate in the interval. I meant after the patient has had more than one attack of appendicitis, then it is very wise, and we have the best authorities in the country to support this view, to operate under the most favorable conditions, when the patient is in the best of health, and the appendical conditions are as nearly normal as we can find them. A man who has recovered from his first attack may never have another. A certain per cent. of cases are really cured, and in them of course it would be stupid to operate in the interval. A much larger per cent. recurs once more, some still recur twice, and some many times. Where we find that the tendency to recurrence is present, I believe it is good surgery and wise practice, and the patient in the interval is in much better condition to be operated on than at any time during the attack. The dangers of operation are much greater during the attack, and while I am decidedly in favor of operating early, I do not believe in operating without a certain seriousness, which very often is never reached. Suppose this is not reached, and the patient gets well. If he has had another attack I would advise that patient to be operated on in the interval, but if that attack should pass off he would unquestionably be liable to further attacks, and I would operate. In those cases operation in the interval is a good thing; it is unquestionable that the patient in the interval is in better condition, but I am not by any means putting it off until an interval, and if you wait for certain conditions of the pulse go ahead and operate, don't wait; but a great many cases of appendicitis do not get those acute symptoms.

Dr. J. A. Burroughs.—I believe it is pretty well admitted by surgeons to-day that it is hardly justifiable to operate for appendicitis in the first attack. I think the pulse is the guide, and the expectant plan of the first attack is the plan, unless the pulse would indicate operation. In recurrent appendicitis you would not operate after the first attack, but if you have another attack after that attack has passed off, of even during that second attack you would be justifiable in operating if the second attack is greater than the first, but if it is lighter you would not be justified, and you would not be justified in operating in the third attack if the third attack was still lighter, the duration shorter, the pulse less rapid, the temperature less high and the pain less severe. It is bad surgery to cut out every man's appendix as soon as he has an attack of appendicitis.

Dr. C. P. Ambler.—I would like to know if the danger of operation will be much greater if I wait until the second attack just begins over what it would be if I begin now; that is, will the operation be more dangerous if I am operated on early in the next attack?

Dr. F. T. Meriwether.—If it is a non-suppurative case there would be no more danger in waiting for the next attack. If it is a suppurative case there would be more danger.

Dr. H. L. Baird.—The only thing that I might say would be a kind of personal history. I happen to be in the same class as Dr. Ambler. I had three attacks. The first was moderately severe, and the second, about two months later, was about like the first, and the third, about three months later, was decidedly more severe than either of the other two. At the time of the third attack I made up my mind fully that I would be operated on the next day if I was not better, but the next day I was better. That was about eighteen months ago, and I had no further attacks. I think I took a greater risk than I was justified in doing, and in a patient I would certainly advise an operation. I don't think a man is justified in waiting when he has made a diagnosis of acute appendicitis, but in a case of catarrhal appendicitis, like mine, he would be justified in waiting for further developments.

Dr. M. C. Millender.—It seems to me that there are only two policies which are justified in the treatment of appendicitis. One of these policies applies to the physician, and the other to the surgeon. One is to never operate at all, and the other is to operate in every case that comes up. If a good surgeon is convenient I would certainly advocate early operation in every case, without distinction, that comes up for settlement. In the absence of a good surgeon I should propose to find a good physician and entrust the patient to him, refusing any and all operation whatsoever.

Dr. L. B. McBrayer.—I had not intended to say anything to-night but I never heard of a man learning to swim by staying on the bank, and I am sure if Dr. Meriwether had held back and said that he had no experience and could not operate for appendicitis, he would not have been able to report those interesting cases here tonight, and I cannot agree with Dr. Millender when he says unless you have experienced surgeons do not operate. If I was going to be operated on I would probably agree with the doctor, and like to have a man who was conversant with the technique of operations, but I should certainly not advise the young physicians here tonight to stand back. The operation is not such a grave, such a difficult procedure, and there is no reason why an intelligent physician, who is well posted, should not operate on any case of appedicitis. I have seen those things advocated in the journals, and I have grown tired of it, and am glad to be able to give vent to my feelings.

Dr. D. E. Sevier.—I think Dr. Meriwether has produced an excellent paper, and it has been fully discussed, but I would like to say one word in reference to operations. I believe in operations for appendicitis, but I believe in watching your case and letting your symptoms tell you when to operate. Referring to what Dr. Morris said about appendicitis in children, it is very seldom you find appendicitis in childhood, and I think in a baby it would be very rare.

Dr. Morris.—I suppose I was not understood to say that appendicitis was common in babies. I meant to say it was probably colic.

Dr. F. T. Meriwether.—I would like to say that Dr. Sevier is mistaken about appendicitis not being a disease of childhood. Probably 50 per cent. occur in people under 20. In regard to the case Dr. Burroughs reports as cured, I know he has had several recurrences. I think a great many cases reported as cured are really not cured cases. They very often drop out of sight, and in women appendicetis is often concealed by some other trouble, but I don't think they are cured. In a case of chronic appendicitis I think it would be better to operate in the interval. In several cases, when I have seen the patient after 24 or 36 hours, I have advised them to wait. If I could have seen them in the first hour or two I might have advised an operation.

Dr. James Sawyer.—Mr. President, in confirmation of the views expressed by Drs. Sevier and Morris, relative to the frequency or infrequency of the occurrence of appendicitis in infants and children, I would like to give the statistics as given us by Dr. Dennis, which, as you will see, are quite the contrary to what Dr. Meriwether has just said. Dr. Dennis says that it is most often present in youth between 10 and 25, who are endowed with enormous appetites which predisposes to inflammation. Dr. Dennis also says it is rare in infants, and between the age of two and ten the mortality is 10 %, between ten and twenty 38 % between twenty and thirty 28 %, between thirty and forty 15 %, and after fifty rare. I wish to be pardoned for speaking after the doctor's reply, but felt that I must make this brief statement in defense of the views stated by the other doctors, and this seemed to be my only opportunity.

Address of Welcome.

Delivered before the North Carolina Medical Society at Charlotte, May 3d, 1898, by C. W. TILLETT, Esq., Charlotte, N. C.

Ladies and Gentlemen of the North Carolina Medical Society:

The first thing that I ever saw in my life was a doctor. It seems that he had promised that I would be a girl, and when I arrived on the scene of action he was very much disappointed and looked very angry at me, whereupon, if I remember aright, I got mad and twisted up my little face and hollered at him as loud as I could. That seemed to bring him to his senses, and he apologized and said I was a fine boy, and we shook hands, and from that day to this I have been on most excellent terms with the doctors. The fact is that I liked them so well that when I arrived at the age of discretion nothing would suit me but I must have a doctor's daughter for my wife. You will believe me, then, when I say that I am very much gratified at the honor which the Medical Society of this city conferred upon me in requesting me to represent them in extending to you a most hearty welcome for them and in telling you how much delighted the whole city is to have your society meet here. The doctors of the city are really and truly glad to see you, and if the doctors are glad to see you, by how much more are the laymen pleased! I fear it will be difficult for me to tell you how much pleased the laity of the city are to know that they have in their midst scores of the foremost physicians of the State making us visits, and just to think that for once in our lives, it will not be $2 per visit!

Your profession as physicians and ours as lawyers are closely identified. We meet particularly upon the common platform of medical jurisprudence, and the lawyers have often to call upon the doctors as witnesses in court. Sometimes we have a double fight in the court house—that is to say we have the lawyers on either side pitted against one another, and at the same time doctors as expert witnesses pitted the one against the other, and I tell you this means about as lively a fight as one cares to see. Some time ago I went into the trial of a case that was hotly contested, relying almost entirely upon a doctor as my chief witness. I ran up my torpedo boat, in the shape of my doctor witness, close by the flag ship of the enemy, and just as I was in the act of blowing it up, suddenly, on my flank, came a torpedo boat destroyer in the shape of another doctor witness, and—well you know what happened. The jury of investigation, which sat on the case, made a report that my destruction was accomplished by an external explosion caused by an expert.

We, of the legal profession, have to study almost every phase of medical science at some time or other, and occasionally we come to the conclusion that we know almost as much as the doctors.

A short time ago we had in this city a case in court which involved the question as to what was the origin of malaria. The lawyers borrowed from the doctors all of the medical works on the subject of malaria that they could and studied them so diligently that when the case came on for trial, I can say, without disparaging our doctors, that the lawyers knew as much, theoretically speaking, about malaria as the doctors did. In fact, I heard one of the doctors say that the next case of malaria he had he intended to call in one of the lawyers as consulting physician. You need not be alarmed about that, for I can tell you now that if the lawyer should undertake to prescribe for a case of malaria, he would "fling it into fits," and then you would get the job certain, for while I have seen lawyers who could give a man fits, I never saw one who could cure them.

Gentlemen, the city of Charlotte is yours, and all that we possess while you are here, is at your command. And I might pause to tell you into what great possessions you have come; I might tell you of our manly men and womanly women; of our pluck and enterprise; of our many and diversified industries; of our beautiful streets and elegant homes; I might tell you that the city of Charlotte in the last ten years has more than doubled her population, and has forged her way far in advance of any other city in the Old North State; but I am afraid to bear down too heavy upon this point, for it might come to pass that about one-half of you doctors would decide to locate here for the practice of your profession, and if my speech should accomplish such a result as that, our home doctors would say that I had over-done the thing, and they would never invite me again to deliver their address of welcome. More than that, it might happen that you would go home and tell your lawyer friends what I had said about the greatness of Charlotte, and they, too, would come trooping in and settle here to divide up the law practice, which is already subjected to long division. So it has been suggested to me that I hint to you in a round about way that, while Charlotte is undoubtedly a thrifty and populous city, it is also an exceedingly healthy one. But I might as well be frank with you gentlemen and say, without any circumlocution, that while we are more than glad to have you here, and hope that you will have a delightful time. still we do not expect you to spend your life-time in our midst.

But, as I have said before, the city is yours while you are here, and I would like to suggest that the motto of this assembly be this: "If you don't see what you want, ask for it." It is said that among the Fellaheens of the Desert, who are noted for their hospitality, it is not considered proper to offer a guest anything until he has first signified that he desires it, but when the request is once made, then the thing asked for must be had as once and at all hazards; and an artist writer tells a story that he was sometime ago on a visit to a Shiek of Fellaheens and went out one morning to paint a picture of a quaint and beautiful cemetery. He said to the Shiek, standing at his side, "This is a most beautiful scene for a picture, and lacks but one thing to make it complete." "And what is that?" asked the Shiek. "It lacks," replied the artist, "a funeral procession going into the cemetery." "Hold on," said the Shiek, "I know a man in the village who is about to die and I will go and hurry him up," and sure enough, before the artist could remonstrate, the Shiek was off, and he created such bluster and excitement around the sick man's house, that he died in a very few minutes, and in less than two hours the Shiek had a genuine funeral procession going into the cemetery, and the artist's picture was complete. Gentlemen, look around you, and if you don't see what you want, ask for it. Go down and take a look at our beautiful cemetery, and if any of you should desire to see how we bury our dead, I can assure you that any of our home doctors can get you up a funeral on very short notice! But I should apologize for that; for I have been told that it is not good form to speak of funerals in the presence of doctors. They say that it is an embarrassing subject to them, and I am really sorry that I said anything about it.

I trust that while you are here the members of your society will enjoy good health, but if any of you get sick I should like to know it, not only because I desire to show attention to a sick guest, but for the additional reason that I desire to know if a sick doctor takes any medicine. There is, you know, a deep-seated conviction that you doctors do not take any of your own medicine. So far as my own experience goes I can say that while I have seen doctors taste medicine and smell medicine I never saw one take a genuine dose of it. Since I have lived in Charlotte I have sat up all night with two of our prominent physicians who were sick, and according to the best of my recollection neither one of them took a drop of medicine. You remember that Charles Dickens more than fifty years ago called attention to the fact that doctors did not take medicine. It is true that in the same connection he said something about lawyers not having any lawsuits of their own, and that lawyers were shy of meddling with the law on their own account because they well knew that it was an edged tool of uncertain application, very expensive in its operation and rather remarkable for its properties of close shaving, than of its always shaving the right person; but that was a fling at the lawyers which was unworthy of Charles Dickens, and I will take occasion to refute it at some other time. I am calling your attention now to what he said about the doctors not taking their own medicine which is true, or at least seems to be true. If it is not true I should like for you to prove it, and if it is true I should like for you to explain it.

And just here comes a part of my speech which it seems to me I will have to omit. I had begun the preparation of this while the President was about to call for volunteers, and I expected about one-half of you doctors would respond to the call, and that your meeting would be a sad one, owing to the absence of members who had gone to Cuba. I had prepared some very touching remarks which I thought well calculated to bring you to tears, but as I find your ranks still intact, I think that part of my speech would fall flat, and I will have to omit it and "ask leave to print." Of the crowd that went from this place yesterday, only one doctor went, and only one lawyer, and the latter was from a distant county. I am reminded of the story of a great orator, who just before the breaking out of the last war, was exhorting the men of his audience to fight and die for their country, and in the climax he quoted that beautiful line from Horace: "*Dulce et decorum est pro patria mori*," whereupon one of his auditors arose and asked the speaker that if it was such a sweet and honorable thing to die for one's country, why he did not go to the front. That, said the orator, is very easily explained; I never was fond of sweet things! And, gentlemen, while we all agree that it is sweet to die for one's country, not many of us appear to be fond of sweet things.

But, speaking seriously there is no body of men in all the State that could present a more interesting spectacle than this medical society. I say this, not only because the men before me are men of education, position, and men whose whole lives, in a large measure, are devoted to charity and good works, but I am proud of you because of your fidelity and ability in your profession. I see before me men in whose breasts are locked up the secrets of hundreds of homes throughout the country. It is said that there is a skeleton in every closet, and if so, it happens, ninety-nine times in a hundred, that the family physician is the only outsider who has ever looked upon that skeleton. If the seal that is upon your lips were broken, and you should tell, without any exaggeration, what you know of the family secrets of this country there would be a consternation a thousand fold more profound and widespread than was created when the news came of the blowing up of the Maine. All honor, I say, to your body that there are so few charges that any professional secrets are divulged. Again, you go into the inmost recesses of our homes, where none but a doctor can go, and you are daily surrounded by opportunities to do wrong, and yet, all honor I say to the North Carolina Medical Society that while doctors in other States have wrecked homes and broken hearts, there is, so far as I know not a single charge against a single member of this society for any such breach of professional confidence.

But gentlemen as I look at your earnest faces the thing that impresses me most is the thought of what you have been through with since last you met. I love to look at the ragged remnant of the old regiment, and to think of the bloody battles and awful conflicts that they have been through; but I reflect that they have only fought against enemies of flesh and blood like themselves, while you, gentlemen, have been in almost daily conflict with the King of Terrors. In the early morning, in the heat of the noonday sun, through the long weary watches of the night, in the mountain fastnesses of the West, through the bogs and marshes of the East, anywhere, everywhere, you have pursued the Rider of the Pale Horse, and sometimes you have beheld him in the distance bearing his victim towards the confines of the kingdom ofdarkness, and you have pursued him hotly to where the gates of death were creaking on their black hinges to let him in, and you have snatched him forth and brought him back to life and health and strength again. I doubt not that the worst conflict which has been had by any man who sits before me was had by some country doctor. God bless the country doctor! The world and particularly the medical profession owes Ian MacLaren a debt of unmeasurable gratitude for telling us of William McLure and how he lived and how he died. I doubt not, as I say, that the most awful conflict which any of you have had was that of the country doctor. It may be far out in the country, twenty-five mile from any brother physician, with no such appliances as the city doctor has, he has engaged all [night long with the fearful enemy in the "fight for life." I tell you, that fight required as brave a heart and as steady a nerve as filled the breast of the Light Brigade at bloody Balaklava.

Gentlemen I am persuaded that the world does not know one-half of what it owes to your medical fraternity. The men of average intelligence know who the great warriors, explorers, orators and scientists of the world have been, but very few indeed know who the great doctors are and what they have done for mankind. There are a hundred men who know who David Livingston, explorer, was to one that knows who Wm. Harvey, doctor, was; and yet all must admit that when William Harvey discovered the circulation of the blood, and that the heart was the great fountain source from which the blood was pumped out, he did a thousand fold more for humanity than David Livingston did when he discovered the source of the Nile and brought to light the wonders of darkest Africa. There are a hundred men who know who the Duke of Wellington, warrior, was, to one who knew who Edward Jenner, physician, was, and yet no one can doubt but that when Edward Jenner put small pox to flight with a drop of vaccine he did a thousand fold more for the world than the Iron Duke did when he swept the proud Corsican and the Imperial Guard from the fateful field of Waterloo. You owe it, gentlemen, to the world, and to your profession to keep ever in the remembrance of men the wonders that have been wrought by the great doctors who have lived, and you ought to call the roll of these great men from time to time. I commend to you the manner in which Peru perpetuates the memory of one of her greatest warriors. You may remember that in the war between Peru and Chili, that occurred many years ago, Admiral Grau, as brave a man as ever lived, commanded the naval forces of the Peruvians. He fought his last fight as commander of the iron clad Huascar, and it was a battle, the like of which was never seen. The brave Admiral was at first engaged in combat with an iron-clad of the Chilians and was about to sink her, when on his side came suddenly and unexpectedly another war vessel of the enemy and poured a perfect hell of shot and shell into his side. The Admiral not contemplating surrender for a moment, went aloft in the place of greatest danger, but where his commands could be most easily given. Above the din and roar of the cannons his clarion voice was heard directing the movement of his men until at last it was silenced and an officer going above found his lifeless body upon the floor, his head severed from it as smoothly as a surgeon's knife could part it. Do the Peruvians allow the name of this courageous man to be forgotten? Not so, for they tell us that though he has been dead for twenty years, yet at every general muster of the army, the name of Admiral Miguel Grau is the first one called upon the roll, and when his name is called an officer of rank steps forward and lifting his cap he points upward with one hand and answers—"Absent but accounted for; he is among the heroes." Gentlemen, let me urge you to emulate this beautiful example and to call the roll from time time of the heroes of medicine and let some one rise and remind the world afresh of the great things that these men have done for alleviating the suffering of humanity.

I beg to express again the hope that your session will be a most pleasant and profitable one and that you may gain and impart knowledge that will aid you in prosecuting the duties of your noble profession.

RESPONSE TO THE ADDRESS OF WELCOME.

By J. HOWELL WAY, M. D., Waynesville, N. C.

On behalf of my conferees of the North Carolina State Medical Society I thank you most sincerely for the eloquent words of gracious welcome to which we have just listened. And, in doing so, it is with regret that, for the present moment at least, I cannot lose my personality as a plain, simple country doctor, more given to work and action than to the evolution and delivery of eloquent words or oratorically turned phrases, and become endowed with the gifted tongue of a Depew or a Grady; so needful were I to essay to express in language our appreciation of your cordial reception.

The members of the Medical Society are no strangers to the splendid hospitality that has ever been a characteristic of the noble sons and gifted daughters of Mecklenburg. Twice before in the forty-nine years of our Society's existence have we been your honored guests.

In 1874, near a quarter of a century ago, the doctors knocked at your hospital gates and were made welcome. Upon which memorable occasion, your spokesman, the most illustrious of Carolina's sons, the immortal Vance, after assuring us that we were thrice welcome, and placing at our entire disposal the homes, the property, and all other of the material valuables of your charming city, in return only gravely asked that we permit you to escape with your lives!

Again in 1887, it was the happy fortune of the Society to visit you when the agreeable experiences of the former visits were more than repeated. And now, in this year of grace, 1898, in experiencing the charms of our third visit we feel that most opportune is our selection of the Queen City for our annual convocation; Queen City, sir, not only in that it is named for the beautiful Princess Charlotte of Mecklenburg, but Queen City in that Charlotte stands pre-eminent among the cities of our loved State in her civic pride, in her progressive spirit, in her constant upward and onward march toward the goal of all that makes a municipality great and powerful, and its citizens respected; pre-eminent in the cultivation in the bosoms of its noble population of that love of virtue, of patriotism, and of liberty which has ever been the priceless heritage, and as ever the constant attributes of her manly sons and beautiful daughters!

Opportune indeed is our assembling here upon the historic ground of old Mecklenburg, within a few days of the unveiling of that splendid shaft of granite, rising heavenward, which shall stand an object lesson in patriotism to the children of future generations, inculcating them with love of country and respect for the heroic deeds of their illustrious ancestors; and forever immortalizing the distinguished bravery, and the pure patriotism of those noble sons of

Carolina, who in the dark and troublesome days of 1775, gathered here and hung out to the enlightenment of the world the beacon light of liberty that cast the first luminous rays across the American Continent, dispelling the universal darkness of oppressions enshrouding the new world.

In passing, it thrills the patriotic impulses of all hearts to note that the spirit of 1775 still lives in the hearts of the American people, and that it shall animate them, in noble emulation of our gallant Southern Fitz Hugh Lee, to continued patriotic action, which will see no end until Cuba Libre breathes the sweet air of freedom, and the now faint and glimmering light of her one struggling star shall have its effulgence brightened and beautified as it blends into the forty-fifth in the grand constellation of the States of the great American republic!

I refer to these things knowing as I do, that in the hearts of no class of our citizens is there a greater degree of patriotism than in those of the members of tbe medical profession—no portion of our citizens are in so intimate a social contact with all classes and conditions of society as the doctor in his daily rounds dispensing mercy's kindly ministrations; into the homes of the rich and poor, the high and the low, the strong and the weak, the learned savant and the illiterate, the saint and the sinner alike receive his attention—none so low that the doctor will not in humble imitation of the Great Physician, stoop to succor; none so high his service can dispense with. Whether in the luxuriant office of the opulent metropolitan consultant, a Gross, a Flint, an Agnew or a Sir Andrew Clark: or as the Carolina prototype of good old Dr. Maclure, of Drumtochty fame plodding along the banks of the Cape Fear or Catawba, or the more sparkling waters of the Swanannoa or Pigeon, as an humble country doctor—wheree'er his lot be cast the doctor lives in closest sympathy with humanity, and that which touches his fellowman alike impresses him. Is it to be wondered at that the family physician should be the chosen trusted friend?

And this close, confidential relation, around the sanctity of which, both the law of the land and the unwritten higher law of public sentiment, has thrown a veil through which no curious or peering eyes may its secrets disclose, imposes upon the members of our profession weighty responsibilities and important duties to be most seriously considered. How well we have in North Carolina discharged these responsibilities in the past, our magnificent and splendidly officered institutions for the care of society's unfortunates, our State Board of Medical Examiners (the model from which almost every other State in the Union is now occupying) our State, County, and Municipal boards of health, our laws regarding epidemics and the regulations affecting contagious and infectious diseases, the general and constant dissemination of valuable information among the people upon the vital subject of how best to live, to promote health, to attain longevity—the resultant ever increasing length in the average of human life—all these attest whether our physicians have well borne the weightier responsibilties imposed on them by society at large and by the State.

But, Sir, I stand not here today to express to you extreme laudation of the North Carolina doctors for the honesty of purpose and the sincerity of action which have ever been the common characteristics of the members of our most noble of professions. Nor is it my province to indulge in fulsome eulogy of the energy, the progressiveness, the public spiritedness, or the bravery, of the chivalrous sons, nor of the grace, the wit, the beauty, the loveliness, or the true feminine worth of the accomplished daughters of Mecklenburg—all these things are known of all men—for them your men are everywhere respected and honored, your lovely women alike adored and worshiped.

I thank you in the name of my colleagues for your most generous welcome, and assure you that as we return to our homes a day or two hence to resume the active duties and the varied responsibilities of our busy professional lives, that each of us will carry away from Charlotte, ineffably printed upon our hearts, a most pleasant remembrance of the Queen City and her truly regal people.

Few *Suggestions* on the Prevention of Tuberculosis.*

By JAMES A. BURROUGHS, M. D., Asheville, North Carolina.

There has been so much written on the subject of tuberculosis since Professor Koch in 1882 first discovered the germ that causes consumption, we hesitate in opening any phase of the subject, yet we are excusable when we state, from statistics, that this is a disease that causes the death of every seventh human being on the globe, and further, if proper precautions and sanitary regulations were observed, in a short time the number of cases could be greatly reduced and longevity raised several years.

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*Read before the North Carolina Medical Society, May, 1898.

All admit that tuberculosis is an infectious and contagious disease and, at the same time, must admit that all contagious and infectious diseases could be prevented if we only knew what to do.

Located as I am, handling hundreds of these cases from every quarter of the United States and Canada, it is appalling to note the lack of knowledge of the contagiousness of tuberculosis and the great danger the infected are to others. It is no infrequent occurrence for a tubercular mother to expect to keep a baby and a few small children in her bedroom, as no protest has been entered against the practice by the family physician at home.

As soon as a diagnosis of tuberculosis is made, first of all, without an exception, it should be communicated to the patient, and he should be informed of all known facts on the contagiousness of the disease so that he would not be a source of danger to others or re-infect himself. The sputa is the principal means by which contagion is spread. All the sputa should be collected in a sanitary hand cuspidor and the papers removed at least twice daily and exposed to a strong solution of bichloride of mercury, or cremated; see to the thorough destruction of these papers of sputa, do not allow them to be thrown into the sink to infect people or cattle miles away; do not permit a blaze to consume the dry portions of paper, leaving the sputa with its millions of germs unmolested to dry and do their deadly work; make the patient understand that it is the sputa you wish to have thoroughly burned.

Patients in the first stage, in fact all stages, of the disease, do a greater portion of their coughing and expectorating on rising in the morning and it incurs no hardship to demand this duty of them, in which they soon acquiesce.

About two years ago the little city of Asheville, N. C., passed an anti-expectoration ordinance (which was, so far as I know, the first ordinance of the kind in this country) since which time one hundred and seventeen cities and towns in the United States have passed a similar law. It has proven a great educational feature with the masses, and practically put a stop to the dangerous insanitary nuisance of spitting upon the sidewalks, in the street cars and public buildings, in the city where the anti-expectoration ordinance was originated. All cities that have passed this ordinance have experienced trouble in enforcing a strict letter of the law, millionaires have instituted suits for damages against corporations because of reproof and ejectment for vulgarly violating this ordinance, but this has only had a good, wholesome, and stimulating effect upon the people, it has put them to thinking.

The poor consumptive of to-day, who is properly informed, is careful with his sputa, he feels that indifference on this point may be death to others, cause him litigation, or hasten a crisis in his own case.

It is an admitted fact that no child is born with tuberculosis, yet they do inherit that peculiar lymphatic, anemic, poorly nourished constitution which gives them but little or no resistance when exposed; to permit these unfortunate children to reside in tubercular homes with like habits and environments as their infected parents or relatives, is nothing short of criminal negligence. Such children should be removed to an altitude of dry, rarefied atmosphere loaded with ozone and perpetual sunshine; in conducting them into puberty and settled life, short school hours should be provided, with much time spent in the open air; this class should be induced and taught the necessity of eating such food as will make blood and build up good, healthy tissue cells so as to give them all possible means of resisting any invasion of this dreaded enemy.

Have at this time under my supervision many individuals and families of a tubercular diathesis who have undoubtedly escaped the disease by the above suggestion; at this moment I call to mind three younger members of a New Jersey family of ten, all of whom had died in quick succession with tuberculosis; these three located in Western North Carolina eight years ago and no symptoms of tuberculosis have developed in either of them; the younger is now two years older than any one of the brothers or sisters who died in New Jersey.

A complete change of climate in all tubercular families is wise sanitary advice, and, to repeat, that change should be to a higher altitude where the air contains a quantity of ozone and perpetual sunshine. and is freer from gases and bacteria. It is judicious to note here that ozone and sunshine are deadly to tubercular bacilli and to this fact is due immunization of the points like the City of Mexico, Denver and Asheville, that have been for years resorts for consumptives.

It is possible for the well-to-do class to avail themselves of these sanitary precautions, but it is quite different with those less fortunate. What we shall do with our tubercular poor is a big question and one which demands the most serious and careful consideration by every State and municipal Board of Health; to diagnose these cases and report them to the local Boards and have them registered, does but little good beyond the general advice given, and swelling our statistics. What that class needs is some provision by State or city where they could be placed under the best sanitary regulations so as to protect an innocent community and, at the same time, offer them the best chance for an arrest or cure; it is more necessary that this class should have official care, as they are largely ignorant and careless, and it is principally these people who lounge around lawns and suburban fields scattering millions of germs upon the grass which infect fowls, stock and milk.

England has greatly reduced her death rate of pulmonary tuberculosis by providing hospitals for her poor; England has eighteen tubercular hospitals with the capacity of seven thousand beds.

With the exception of the States of New York and Massachusetts, there has been no attempt at isolation of the bulk and file of tuberculosis in this country, so far as I know.

It is gratifying to note the good being accomplished in veterinary surgery under the various State Boards of Health in pointing out infected herds of cattle and disposing of same.

Every large collection of people should have a competent bacteriologist to keep a watch over its meat and milk supply, with an especial view to prevent tubercular infection; this official would doubtless save the corporation employing him many times his salary, in pauper burial expenses, to say nothing of the protection to human life.

Malnutrition, insufficient food of a poor quality, and over-crowding of tenements and public buildings are subjects that are constantly confronting Health Boards and individual. practitioners; each is a subject within itself.

Wish to say something in behalf of our over-crowded school buildings and orphan homes; a glance at the pale anemic faces in a public schoolroom would convince the most skeptical of the vicious results of improper ventilation. That many children become infected in the vitiated atmosphere of the schoolroom is a painful fact that is only too often brought to our notice.

If mountain air, containing as it does, large quantities of ozone is beneficial, and often curative, in tuberculosis, why not bring a similar condition to bear in the insanitary schoolroom or other places where there is assembled a large and permanent collection of people.

It is a somewhat remarkable fact that ozone, which can be generated by means of an electric current with comparative economy and cheapness, has not been put to more extensive use for sanitary and prophylactic purposes; the extraordinary germicidal power of ozone has long been known and recognized by the scientific medical world; the ozonizing of the schoolroom and public building is a matter of minor mechanics. An ozone-generating apparatus is not expensive and can be connected with an electric current from street car wire coming into the building, or with a private dynamo; with the proper apparatus the whole building can be impregnated with this germ destroying gas.

In any large assemblage of children some one or more have tuberculosis which has not been suspected by teacher, family, or consulting physician. If the ozonizing of school buildings were put into practice, that source of tuberculosis, with all other contagious and infectious diseases would be practically cut off, and the children would have a nice, sweet, clean, non-germ laden fluid to breathe; this idea adopted in the school there would be fewer constitutions prepared for tubercular infection.

In my judgment no hospital or sanatorium, either private or public, should be kept open unless there was ample provision for ozonizing the entire building from cellar to garret. The statistics of mortality from tuberculosis in insane asylums and prisons of the different States, is sufficient to suggest a consideration of the above idea; all must acknowledge that something is wrong when strong men in a few months after incarceration become tubercular. With an ample ozonizing apparatus placed in these prisons and asylums, there would be marked diminution of tuberculosis.

The ozonizing of all hotels, and especially Pullman cars, is the most rational solution of the danger along that line. Permit me to state that in one of the "babies wards" of the New York Post-Graduate Hospital, where an ozone-generating apparatus is used, contagious diseases are almost a curiosity, whereas in non-ozoned wards quite a number have occurred.

Some ingenious pathologist has stated that the consumptive cadavor contains about eleven million tubercle bacilli; I am not prepared to substantiate or deny the above statement, yet it is quite reasonable to presume that the calculation is approximately correct; we do know that these bacilli will live in the ground for more than a quarter of a century, retaining all the vitality of the same germ that was carelessly deposited in a hotel lobby the day before; knowing this it does seem reasonable and practicable, from a prophylactic and sanitary position, that all tubercular dead should be cremated; to bury this class means to infect the soil and contaminate dependent water supplies for man and beast for more than a generation; a concerted action of all the civilized world in cremating its tubercular dead might not have much effect upon this generation, but would lessen the dreaded disease for those who come after us.

There are many points of vital value on the prevention of tuberculosis left out of this little paper which I trust may be brought out in the discussion.

The laity, as well as the profession, is waking up to the contagiousness of this disease, and, in the judgment of some of our best thinkers, there will soon be a pronounced recognizable reaction in the number of the tubercular; indeed a perceptible reaction has already begun, as is observed from an editorial in the Journal of the American Medical Association of February 26th, 1898, where the statistics from twenty of our principal cities, having a population of seven million and five hundred thousand, have shown a decrease of the tubercular death rate of thirty-three per cent. since 1888, which is tersely ascribed to a more general knowledge of the contagiousness of the disease, better food supply and more perfect sanitation.

DISCUSSION.

Dr. A. A. Kent.—I feel like adding more than simple emphasis to the position taken by Dr. Burroughs, for I do wish, gentlemen, to emphasize the importance of preventative measures in tuberculosis. If tuberculosis is a contagious, infectious disease, then it is preventive, and if preventive, it behooves us as custodians of the public health to bestir ourselves that something effective may be done. Dr. Koch, some sixteen years ago, demonstrated the fact of the causal relation of the bacillus of tuberculosis to consumption. During these sixteen years of time the most able scientists of the world have been confirming his conclusions. There are some who still doubt, that we must admit, but while we admit it I am frank to say that there being some who have doubts tends to make discoverers more careful, more painstaking in promulgating their discoveries. It stimulates research, but the fact that there are those who doubt does not disprove it, and it stands to-day among the best of the profession a well admitted fact that consumption is a contagious disease. Then if contagious what must we do? Shall we ask the legislature to pass laws? In my opinion we must, but before we can enforce laws we must have the moral support of the public, of the people, we must teach it in season and out of season, we must so teach it and preach it that the people will learn it, and that once having learned it they may put it into practice, for no knowledge is of value that can not be put into practical use. I am glad to be able to say that our highest institutions of learning are already armed and equipped with the proper information on the subject. I have had some little correspondence with our best equipped institutions and I find that they are already enforcing proper sanitary regulations in regard to this disease, and I am glad that it is a fact. These are the fountains, the sources of knowledge, and from them it will be spread abroad among the people. But, gentlemen, more may be done, and more may be done quickly. It should be taught in the homes, it should be taught in the common schools, it should be taught in the high schools, it should be taught in the colleges, it should be taught in the hotels and boarding houses, it should be taught in the church and in the State, and we should continue to so teach and so preach it that the psople will be ready to join hands with us in the battle against this arch enemy of human life. If we once have the people educated on the subject, we are ready for strict laws and the laws will be enforced. But, gentlemen, it behooves us to teach the people, and when once we have taught them, with willing hands, educated brains and determined minds they will take up the work with us, and in one common cause we can go on to the extermination of this the greatest enemy of human life.

Dr. Lewis.—I want to express my gratification at the excellent paper read by Dr. Burroughs, and the no less excellent remarks by Dr. Kent, and I think he sounds the keynote when he speaks of the profession as the custodians of the public health. I don't think anybody can deny that every physician is a health officer morally, whether he is so really or not. It is simply a matter of education. Laws are nothing unless the people are willing to carry them out. There are one or two practical things that I think all of us could carry out without any trouble at all if we would simply give it attention. The ordinance against spitting on the streets of a city or town is very well, and I am mighty glad the laws of our city of Asheville have done that. but you all know, as stated by Dr. Burroughs, that sunshine and ozone are fatal to the life of the tuberculosis bacilli. People spitting on the streets, out in the open air, is not so dangerous as their spitting in the unventilated houses where these bacilli flourish. As illustrating this point, I quote from the last bulletin of the State of Ohio, which is just out, the history of a house in Ohio in which there had been three deaths, evidently contracted from an original case in it. It was a new family who moved into the house, and who had no hereditary predisposition to the disease. Now that is a striking object lesson, and I am satisfied bears very materially on the question. If the profession insists upon it, and impresses upon their patients the fact that tuberculosis is a contagious disease, and unless they do take the proper precautions they not only cause their own death but the death of those dearer to them than their own lives, I think there would be no difficulty in carrying out the proper precautions. As I intimated, the most important of all is the thorough disinfection of rooms that have been occupied by tuberculosis patients. If we could ever get the sentiment instilled into the minds of the patients in the towns and cities that they would under no circumstances rent a house in which a case of cousumption had lived unless that house had been thoroughly disinfected, and an official certificate to that effect presented, I believe it would have a very great effect. If the profession could succeed in poisoning the minds of the patients against the landlords to that extent, and impress upon their patients that in no case should they occupy a house unless that house had been disinfected, I believe public opinion would be built up more rapidly than in any other way I know of. Of course, isolation of tuberculosis patients is desirable. Practically, of course, it can not be done. You can't take the children away from their parents. The poor you can't manage because they haven't got the money, and as we all know, public sentiment in North Carolina is not ready to make appropriations to take care of consumptives. If the profession can impress upon their patients the fact that tuberculosis is a contagious disease, and above all that absolutely thorough disinfection and ventilation of rooms occupied, is necessary, which can be most easily done, I do believe a great deal of good may be accomplished.

Dr. J. W. Long.–I would like to say a few words in discussing this paper, but it so fully covers the ground that it has left very little to be said, and I rise simply to endorse what has been said. I think that we cannot speak upon the prevention of tuberculosis too often. Every gentleman who has spoken has emphasized the necessity of educating the public along this line, and the only way we can educate the public is to keep talking about it, and I do not believe we can spend an hour more profitably in any medical meeting than in discusssing this question of the prevention and the means of preventing tuberculosis. There are only one or two points that I would call attention to, and one is the practical matter of preventing tuberculosis among physicians themselves. I think possibly, if you will excuse the personal reference, that I inherit a tuberculous tendency from my father, and every time I go to see a tuberculous patient it hangs over me like a terrible nightmare, and I take the precaution after every visit. whenever it is possible for me to do so, to wash my hands and face, because it is by these means that the bacilli are conveyed to the lungs. Now, I think that the very fact that tuberculosis is so mildly infectious constitutes the dangerous element. If we could show to the public that tuberculosis was acutely infectious, as is scarlatina or diphtheria, we might hope in a short time to educate them up to seeing the necessity of instituting measures to prevent it, but it is because it is so mildly infectious that we have such a hard time in educating the public. But returning to the point which I just mentioned, and that is tuberculosis among physicians. We all of us meet doctors occasionally who have tuberculosis—we know of doctors who have died of tuberculosis. The question comes up, how did they contract it? And it is quite possible that they contracted it through contact with tuberculous patients, and I think we might set a good example to the laity by instituting some reform ourselves, and that we should show them that it is important to disinfect ourselves. Now, I have heard physicians talk about disinfection after visiting cases of scarlatina, and yet those very same doctors would go to a case of consumption and never disinfect their hands, or their faces, or their overcoats and go to another patient (a child it may be) without any disinfection. We can best educate the public by instituting some reform ourselves along this line. I was very much pleased with Dr. Burrough's paper. It kind of knocked me out on one thing, though. He said that every sanitarium ought to have an ozonizing apparatus, and I kind of consoled myself by thinking that this might be necessary for the sanitariums in New York or Asheville, but I didn't think it was necessary for the sanitarium at Salisbury. It may be needed in Asheville, the great Mecca for consumptives. but we don't want you to use any ozonizing apparatus on us. I was very much pleased with Dr Burroughs' paper and feel very much profited by the discussion of it.

Dr. Lewis.—Dr. Spencer says that the keeper of the poor house or home for the aged and infirm of Caswell county died not quite two years ago of phthisis. No family history whatever. Since that time two children have died. Two remaining children have now a phthisis. The wife has tuberculosis, and two laborers that spent a week in that house have tuberculosis. I asked his advice in regard to the disinfecting of that house, and he gave the advice that the best way was to burn it up. That is really a very striking lesson.

Dr. J. A. Reagan.—Mr. Chairman, there was a case which I wish to bring before the society that so strongly shows the contagiousness of the disease, that necessitates the ordinance being passed in regard to public houses. There was a gentleman in Peoria, Ill., who is now at my house. He was examined there by the best physicians, and he had no symptoms of consumption at all, so they said. He was broken down from hard work, that of a professor, and he was advised to go to Colorado. He went there, and they examined him there, and pronounced his lungs perfectly sound, and said he had no symptoms of consumption. In the hotel at Colorado Springs and through the streets there are no sanitary regulations at all, and the result was that in staying there a few months he had been examined three or four times and there was nothing the matter, but the last examination revealed, as the doctor said, some bugs in the sputa. He then started back to Peoria and when he got back there he had a hemorrhage and fell in the street. He came to my house about ten months ago and he has had no hemorrhage since. He weighed 117 pounds when he came there, and now he weighs 137 and he is able to walk up these mountains, and walked six miles last week. So you see the danger there is in not providing the necessary sanitary preparations about a city and about a boarding house and everywhere else. This man according to the physicians was perfectly sound every way. I say then let us try to educate the people. I fully endorse the doctor's essay on the disease and its prevention, and also what has been said on that question. I remember that about four or five years ago we discussed this in the Medical Society at Asheville, and there was one physician there who contended that the disease was not contagious. He said that nurses in the hospitals never take consumption, but that idea has given way and the Medical Society at Asheville was able to pass the resolution and the ordinance was endorsed by the town authorities that prevents the spitting on the sidewalks or in public places at all.

Dr. Walton.—I have knowledge of a case similar to Dr. Spencer's where the parents and two boys and two girls died of tuberculosis in rapid succession. After that there were three children left. They broke up housekeeping and the children moved off elsewhere and none of the rest developed phthisis. This is pretty strong evidence of the contagiousness of the disease. The mother was not of a consumptive family, there was no heredity in that family from her side. Tuberculosis was hereditary on the father's side.

Dr. Anderson.—I would like to say something upon the importance of making a correct diagnosis of these coughing cases just referred to. Of course, all our patients who cough have not consumption by a long ways, and many of those who don't cough and very often look well, have the beginning of consumption. I have in mind now some few cases in my own town where it was very important to make a more correct diagnosis than was made. One of these was a young man in my own profession, who graduated about a year ago. He delayed having an examination made last summer, and when he did have the microscopic examination made, he found the tubercle bacilli in very great abundance. I believe had he had the necessary examination made twelve months ago and taken the necessary precautions to stamp out the disease, and gone to some suitable climate, and used other precautions, he would have checked the course of the disease and been on the road to recovery today. It was a sad thing to see that young man, so well prepared for his work, so devoted to his profession, the saddest picture I ever knew of in the whole history of my life to look upon, going to his grave because a correct diagnosis had not been made in the beginning. There was another case I have in mind of a young lady. She is the very picture of health now, or was six months ago. She had a throat trouble, so her physician thought, and her trouble ran on till finally she consulted a specialist, Dr. Chisholm, of Baltimore. He treated her throat awhile, and on leaving he asked her to send him a specimen of her sputum, and just about the time she sent it she gave a specimen to her town physician also. I made a microscopical examination and I found tubercle bacilli, very much to my surprise; but the doctor told her he could tell her there was nothing the matter with her lungs from a careful physical examination. So I wish to make the point that it is very important to make a careful examination with the microscope. It is the easiest thing done in bacteriology. It is the most reliable thing we do in making this examination; we can absolutely tell from the stain of the bacilli, and the presence of tubercle bacilli simply by examining it. It It retains the stain and is so hard that it won't dissolve. It is an easy thing to to, and any doctor can learn how to do it, I believe, in just a few hour's time with a sufficient magnifying lense.

Dr. Hunter.—I would like to inquire, for information, if tuberculosis is so contagious and so contaminating how is it that we never have a patient in the beginning of the disease at the age of 50 or 60 years? In all my experience I have never seen to my own knowledge a case of tuberculosis that had been contracted after the age of 50 or 60 years. If these germs are so contagious and contaminating, it appears to me that in the older debilitated frame they would be more so. I would like to have some light on this subject from those who know more about it than I do.

Dr. Carr.—I would like to state a little incident that came under my knowledge. Some six or eight years ago I was traveling in the mountains of Switzerland, with a case pronounced consumption by a number of doctors. We were traveling in the mountains of Switzerland, and in a little village at which we stopped, there was great excitement. It seems that a French soldier who had lived there had been ordered away, and contracted a cough and came back. He lingered there for some time and his wife nursed him, and he died with that cough. His wife took that cough and she died also. The father of this lady was a well-to-do farmer, and he had sold a great many chickens around and the people bought them. It was a kind of watering place there, and pretty soon something like consumption, a regular epidemic, broke out around that little town, and it created great excitement. Some big French doctor came and looked at it and pronounced it a genuine consumption, and he made the cause of it out in this way: That when that French soldier contracted that disease he brought it to that little mountain town, and gave it to his wife. Her father raised a great many chickens, and every afternoon she would go and sit down in the yard, and every time she would emit this expectoration the chickens picked up that sputum and ate it up, thus giving it to the different people around who bought and ate those chickens. I didn't pay much attention to it at the time, but when I came back to America I found that that was being published in our journals here. Those chickens had eaten those bacilli, and from them they had been conveyed to the people. I give you that for what it is worth. It is a well established fact, though, and I know it to be so.

Dr. Crowell.—I wish to say a word in this discussion of Dr. Burroughs' paper. It is rather to speak of the prevention, by Dr. Reagan. It seems to me that it is rather an incident to show that great care should be exercised in making a diagnosis of tuberculosis rather than to show the contagiousness of the disease. The patient was said to be thoroughly broken down, and was sent to Denver, which would show that he was tending towards tuberculosis, and that tuberculosis was not discovered on his examination at home or even after he got to Denver, but he developed a case before leaving there—it seems that that was proof that he had tuberculosis when he went there; there was tuberculosis so slight that it was not at first recognized. I know I frequently examine a case supposed to be tuberculosis without finding any evidence of the tubercle bacilli several times in succession, but still if I do find it later I don't suppose the man has been infected since I first examined him, but I think he had tuberculosis all along and I failed to discover it.

Dr. Oscar McMullan.—I think it rather too late in the day for this Medical Society to discuss whether tuberculosis is infectious or not. That is an accepted fact by the profession of this land, and all other lands so far as I know. The only question is as to the degree of infection. What I wanted to say especially was in reference to the houses in which we live. It would be all very nice if we could do as Dr. Burroughs suggests—have an ozonizing apparatus in the cellar of our houses and thereby permeate the whole atmosphere with that health-giving ozone, but we all can have go through our houses a breath of God's pure atmosphere, in which at all times there is some of this blessed ozone, and by a rapid change of air through our house passages we can get that required amount which will prevent the development of the germs in our houses. Look at the history of tuberculosis as I understand it, especially among the colored race. In antebellum days tuberculosis was almost unknown among the negro race. Why was that a fact? My belief is that in addition to other causes, of course, they were properly clothed, and they were properly fed, but mainly because they were properly housed. They all lived in the country, they all lived in cabins ventilated by a chimney clear across one end of the house and up that chimney was going constantly a column of air four feet square, and fresh air was constantly blowing in from every crack, and it was impossible for a germ to live and breathe in such an atmosphere. He went right up the chimney. What is the condition at the present day among the negro race? We find them huddled in the cities and towns. They have left the country. They are all poor. They live in eight by nine rooms and half a dozen in a room, with a little stove, or what is worse still, one of these little sheet iron heaters, that economize fuel, and the air is perfectly stagnant, and they inhale and exhale and re-inhale the same old air, and I should as soon expect a patient of mine to be free from intestinal trouble if he mixed with his food a small quantity of his own excrementa, as to expect a patient of mine to keep in his body sound lungs when he breathes such atmosphere. The same way it is with the American Indian. When he roamed through this broad land of ours, slept in the open air with the blue canopy of heaven for his covering, tuberculosis was unknown. What is his condition to-day? He lives the life of a lazy loafer, shut up in houses in winter, consequently the race is dying of tuberculosis. Not only is it so with reference to the negro and the Indian, but it is so among our own Southern people. In ante-bellum days they built their houses broad and wide, a chimney at each end with wide open fireplace, and had plenty of servants to cut and bring in wood. Now they build themselves fine houses, put one of these big iron heaters down in the cellar, and fill the house with a heated atmosphere, and the patient lies in there and swelters, and there is no fresh air in the room, and the patient has tuberculosis, and I believe that is the reason why in this Southland to-day tuberculosis is on the increase. For the same reason has it always been much more so in the Northern States because, on account of the rigors of their climate, they necessarily live in close houses. I take more pains to instruct my patient how to build his house than anything else. I have a case in my mind now. I have a patient who built himself a very fine house. He is a delicate man, and I asked him to put a fire place in his sitting room and in his bed room too. He would not do it, and it is all I can do to keep him out of the jaws of the grave. He is dying of consumption in spite of all I can do. I believe we should all take special pains to instruct our patients along this line, and let plenty of God's pure ozone giving atmosphere in upon us.

Dr. Fox.—I don't wish to try to refute the gentleman's argument at all as to the cause of tuberculosis, but there must be something more than bad air. I, myself. practice in the country, my patients live in the kind of houses he describes they had before the war, open and all that, and yet I think I can say that in my eighteen years of practice one-half of the deaths among the negro population that I have seen have occurred with tuberculousis, with a disease contracted under the circumstances spoken of, in the open air, open houses, and in the country, so that there must be some other cause than merely ill-ventilated rooms, though those things have considerable influence. And possibly being badly clothed and badly fed is as great a cause of the increase of suffering among the negro population as all other causes combined. As to the contagiousness of consumption, of course, I don't propose to dispute that, for on that theoretically, we all say practically the same thing. I don't think I have any natural tendency to it, and therefore, have no fear of it. I may die of it, of course, but I don't believe that many in this medical party have any idea, that practically have any fear of consumption from the patients with whom we come in contact. Then can we come up and teach this laity we have been talking about, about the contagiousness of the disease when our acts all the way through belie our words?

Dr. McMullan.—Allow me one word in reply to the gentleman. Of course, I don't claim for an instant that bad air will give a man consumption. I simply contend that it hardens the germs in consumption, and makes the patient more vulnerable to consumption. Negroes go to church and stay for hours and hours in this vicious atmosphere. Consumption is more frequent than formerly and they are more exposed to the germs than formerly.

Dr. Burroughs.—I wish to thank you gentlemen very heartily for the discussion of this paper. It has met the end for which it was written. I wish to say this, that a tuberculosis patient is not considered dangerous to other people as long as he is careful with his sputum. Physicians attending tuberculous patients and the nurses who are caring for them, are in least danger of any of the contagious and infectious diseases because it is so easily controlled by the destruction of the sputum. I can say this, that I appreciate the remarks of Dr. McMullan on making a thorough ventilation of the rooms, the big old fashioned chimneys and the open doors and windows with plenty of light and air, because ozone and sunshine are what kill out the germs, and people are not in a vitiated atmosphere which prepares them for infection. There is one point which has not been brought out that I want to lay special emphasis upon. Every room that has been occupied by a consumptive should be as thoroughly disinfected, as thoroughly sterilized as if a death from consumption occurred in that room. It is bad sanitation to allow consumptive patients to pass from house to house and others to move into those rooms. In Asheville, we have every consumptive registered, and we have it sent in to the Board of Health whenever he changes his residence, and the physician who is up to his business there sees to the thorough disinfection of this roon after the patient has gone, and we see that our patients go into a room that is thoroughly disinfected. We don't sterilize our rooms with ozone. That was mentioned for large institutions. The cheapest and best way to sterilize a room where consumption or any infectious diseases have been, is by sulphur, by eight pounds of sulphur, for instance, burned in a room say fifteen by fifteen each way, burned in there for eight hours. It will sterilize it. The superintendent of the Board of Health of Buffalo, I notice, has been making some experiments. He had the sputum that was half an inch thick in a bottle, of tubercle bacilli, he also had some sputum and mucus that contained diphtheria germs, and he tried this burning of sulphur in the room for eight hours, and the germs injected into rabbits or guinea pigs failed to get any re-action. I thank you, gentlemen, for the discussion.

Dr. McMullan.—When you try sulphur, don't you have to have moisture with it?

Dr. Burroughs.—It is best to have moisture, but dry sulphur will kill the germs.

Dr. Fletcher.—I believe sulphur burned alone is absolutely worthless without using steam with it.

Two Southern Pioneer Heroes in Surgery and Gynecology.*

By Albert Anderson, Wilson, N. C.

Mr. President: Decade after decade, it has been asserted that North Carolina is the Rip Van Winkle State. I deny the charge. Of all places in the world this is the most appropriate to make the denial. We are upon historic ground. It is well to remember tonight that we tread soil of the nativity of American liberty. Upon the soil of old Mecklenburg was born the Declaration of Independence more than fourteen months before that immortal document was produced at Philadelphia. The heroes of this county, in convention assembled, declared in thundering tones those great principles of personal liberty and American independence which have become the foundation and tower of human rights throughout Christendom. In thundering tones, I said, and remember that the roar of thunder is born in the flash of lightning. May 20th, 1775, there flashed forth from the immortal soul of Dr. Ephraim Brevard this declaration: "Let us declare our independence and defend it with our mutual cooperation, our lives, our fortunes and our sacred honor." This came from a crowd "neither sleepy, hungry nor fatigued."

The seven Revolutionary engagements fought within forty miles of this beautiful city vindicated the heroism of this daring deed, and eternally established the right of this place to be called the "Hornets Nest" of the Revolution. It makes a great difference to the force of any sentence whether there be a man behind it or not. Through every word, every clause, every sentence of that Mecklenburg declaration, we meet the eye of the most determined, heroic man. Their force and terror inundate every word; the commas and dashes are alive; the writing is athletic and nimble. It went far—is going today—will live forever and travel to earth's remotest bounds. Great patriotic Doctor! We honor thee tonight as the chiefest lover of thy country. Thy single eye saw political truth; thy intelligence formulated it, and thy courageous hand penned words embodying our inalienable rights, which are but the transcript from the Will of God. Thy patriotism bore the fruits of union, domestic tranquility, justice, liberty and welfare.

Here, too, was the home for a long time, of North Carolina's greatest, wisest, purest statesman. Like Ephraim Brevard, he died with a single physical eye, typifying the great ruling purpose of his life's work, to serve the best interest of his beloved people. In peace, war, or imprisonment, he was first and most loved of all. North Carolina never had any honor too great, any love too precious to give their first citizen and greatest statesman — Zebulon Baird Vance.

There are common traits that mark heroes wherever you find them, under all climes, in every vocation and profession. Take the medical or surgical hero. He maintains his equilibrium. He always rides; is not reduced to dismount and walk, because his passions are running off with him in some distant direction. Calm and serene amidst the lightning's flash or the thunder's roar, the tumult and uproar of the howling mob, or the terror and excitement of home. After the smoke of battle has cleared away there is no trouble to the dullest vision in seeing victory flashing from his eye. "Will he never come?" she cries, an' a' heard the soond o' the horses feet on the road a mile awa' in the frosty air. The Doctor comes skelpin into the close, the foam fleeing frae his horses mouth. Whar is he? wes a' that passed his lips an' in five meenuts he hed him on the feeding board and wes at his work—sic work, neeburs, but he did it weel. An' ae thing a' thocht real thouchfu o' him, he first sent the laddie's mither toe get a bed ready. It was mighty toe see him come inta the yaird that day, neeburs; the vera look o' him was victory." This William McClure was an ideal type of a hero. We have some in North Carolina. Like McClure they do their best for the need of every man, woman and child in their wild, straggling districts, year in, year out; in the snow, in the heat; in the dark, in the light; without rest or holiday for forty years, and the very sight of them is victory.

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*Read before the North Carolina Medical Society, at Charlotte, N. C., May 1898.

Is the physician always brave enough to stand by his patient when the laity see in the form of convulsions the death angel coming with rapid, but sure speed—when the cries come quick and loud for help! help!! help!!! At such times a hero with a military attitude of soul affirms his ability to cope single-handed with the infinite army of enemies and thereby emulates the example of the great physician when he stepped out upon the turbulent waters and said "Peace be still."

There are other foes than external that a doctor must meet and conquer—those of his own nature. To cope with these he must have a will that says, "Thus far and no further." When did you yield to the clamoring demands of patient for more opium or whisky? Then it was you played the part of a coward. Such cowardice in pandering to damning appetites is retroactive, and damns the doctor with short patronage, supreme contempt and the habit itself.

"Vice is a monster of so frightful mien
As to be hated needs but to be seen,
But seen too oft, familiar with his face,
We first endure, then pity, then embrace."

"Cleave to the right as a ladder that leads up to manhood and God."

Let us not forget the results which science teaches. "In the shipwreck only the pilot chooses with science the means of escape, he who comes to land must sail with him." There is a secret impulse in every character. Obey it, though the heavens fall and the earth swing from beneath your feet. We ought to know from experience, observation and science the things to touch not, taste not, and handle not. Yet in the face of this triple vantage ground, is it a fact that, to our numbers, we have the largest per cent. of any other class that take whiskey and morphine as a panacea for our restoration to rest and health? Insomnia comes to our couch; sleep we must have in order to work. If trional is not a sufficient hypnotic, morphine is, and too often the arms of Morpheus enclose us in his sweet but fatal embraces. It is appropriate now to sonud this note of duty. Put on the armor of manhood. Teach by example as well as by precept. No man can fill the place of a hero who does not check the ordinary evil propensities of his own nature.

Take the father of gynecology—H. Marion Sims. Test the material out of which he was made. He was patient and persistent. He carried the plans of his powerful mind into minute details, manipulating with that skillful hand to a hair's point, finishing every step as carefuly as if he were going to receive a fortune at once. Without encouragement, at one time without friends, without money and withou health, the hero worked on till victory wa his. The heroic mould of this man wil bear the scrutiny of the solar microscope.

"Slave to no sect, who took to private road,
But looked thro' nature up to nature's God."

His nature opened a foreground in the medical world, and, like the breath of morning landscapes, invited his comrades on. The conditions that met this pioneer had always existed. Surgeons had looked on and declared by their inactivity and noninterference that it was impossible to remedy the miserable existence. After efforts lasting four years, doing the operation thirty times on one patient "with palpitating heart and anxious mind, he found in removing the stitches a perfect union of the little fistula." Our hero broke the umbilical cord that hold so many of us to nature, and rose to the platform of pure genius and has ever since received the gratitude of thousands of women restored to health through his discovery and work. He did not peer into the future for some niche in the temple of fame where his name would be placed, but did his work perfectly, patiently, without reward or hope of reward. Thus it is ever so with a true man. That which a man feels intensely he struggles to speak out of himself, to see represented before him in visual shape—with a kind of life and historical reality in it. With Sims it was a most earnest thing to be alive in the world. The occasion of a woman being thrown from her pony furnished him with the opportunity of inventing his speculum. A vista of wonderful possibilities was opened to his inquiring mind. He saw results giving to woman relief and happiness that thrilled him. A hero is a hero at all points, in the soul and thought of him, first of all. Like truth, tho' crushed to earth, he rose after every failure. He did not complain at nature and hold her responsible for his failures. His work, not nature, was considered at fault. Eliminating first one factor and another that prevented his success till the darkest hour came, and like the last hour before dawn—so the dawn soon came to his professional work, and he cried "Eureka."

Success followed success till there was no man or surgeon above him in honor or skill. In his trials, successes, honors and fame, we always find him a great soul, loyally submissive, reverent to Him who is above. Had he followed the advice of his brother-in-law, to "resign the whole subject and give it up" he would not have been the father of gynecology, the founder of the Woman's Hospital in New York, and the recipient of honors and honorariums of kings, queens, emperors, empresses, princes, princesses. When John Hancock signed his name to the Declaration of American Independence, it was said that he wrote his signature in letters so large and loud that the cry for liberty, which they represented, was heard around the world. With equal truth it has been said that when Marion Sims fell so suddenly into the arms of death, the shock was felt wherever woman suffers or surgery is practiced. (Had this been said of Ephraim Brevard instead of John Hancock, it would have been the whole truth.)

When thinking of the daring deeds of heroism in surgery, we naturally and with pleasure turn our thoughts to those accomplished by southern heroes, and for good reasons, because they are unexcelled in skill and ability by men at any other point of the compass. With thrilling delight we mention another hero in the surgical galaxy of the deathless, the father of ovariotomy, Ephraim McDowell, of Danville, Ky This fatherhood is 89 years of age next December 13th. The result of this parentage, I should say from the best obtainable statistics, is the addition of over fifty thousand years to the life of woman. Such a tremendous boon to woman comes from inspiration, skill and heroism. He was born not to die to surgery. He is also immortal in the moral and spiritual spheres. Long and faithfully had he studied the possible success of ovariotomy when his first subject came under his professional eye. After a most thorough and critical examination Dr. McDowell informed his patient, a woman of unusual courage and strength of mind, that the only chance for relief was the removal of the diseased mass. He explained to her with great clearness and fidelity the nature and hazard of the operation. He told her he had never performed it, but that he was ready, if she were willing, to undertake it and to risk his reputation on the issue, saying it was an experiment, but one well worthy of trial. A hero and a heroine had met. Unlike Felix to Paul, she listened and was fully persuaded. His life hung on the recovery of this heroic woman. The mob led by the profession (shame be it said) would have put an end to this heroic life had this woman died. But with confidence in God and in his own ability, he dared to do, and if necessary to die, to save this woman's life. No anæsthetic to wrap into insensibility the quivering nerves of his subject. Only a covering thrown over her pallid face to shut from view the flashing of the few instruments used. The operation was done, the woman lived. The result was, is, and ever will be, the greatest boon hitherto to woman, and an eternal inheritance to surgery.

Just prior to this operation he communed with his God. That prayer of the immortal McDowell was the true index of his nature. His purpose was strong as Gibraltar. His conception of the operation was clear as the noonday. To relieve suffering by surgical means was an uncontrollable purpose. Do you suppose for a moment that he considered the effect of the operation upon his success—whether it would enlarge his influence among the laity or make his name immortal to the profession? Utility only thrilled him, the relief of woman moved him to action. "Let a man do his work, the fruit of it is the care of another." Are not all true doctors that live, or that have ever lived, soldiers of the same army enlisted under heaven's captaincy to battle against the same enemies? Ephraim McDowell, triple immortal spirit, we hail thee as hero, christian, and chiefest surgeon of thy day the world over.

The work and words of these pioneer heroes are the richest fruitage we possess today. Out of the depths of their souls sprang deeds immortal. To every loyal son of Esculapius they are brothers.

On one occasion an orator was contrasting the fame of statesmen, orators and military men, and said he, chief among all these is he who bears the mark of our guild, Ephraim McDowell. For the labors of the statesmen will give way to the pitiless logic of events, the voice of the orator grow fainter in the coming ages, and the deeds of the soldier eventually find place only in the library of the student of military campaigns; while the achievements of the village surgeon, like the widening waves of the sea, shall reach the remotest shores of time. Verily the achievements of these heroes prove the truth of this beautiful contrast. These two were rural surgeons. We should take encouragement from the history of these. We, as they did, live away from medical centers, in small towns, and rural districts. Such places have grown men who have given to the world the most practicable discoveries and advances in surgery, medicine and hygiene. These are too numerous to mention, but they have erected in all ages their monuments, imperishable and eternal. It is said that the ploughman tilling the fields of the western slope of our continent, who keeps his eyes intently on the furrow, may occasionally find nuggets of gold. So the faithful toiler amidst human ills is liable to unearth jewels of fact, which garnered and recorded, will add to the wealth of surgical knowledge. Sims and McDowell kept their eyes intently on their work. They recorded only a fraction of their discoveries; yet they kept a sufficient record to render themselves deathless and their facts invaluable. "The spirits of great men, like immortal ships, sail the ocean of time bearing treasures of the civilization which gave them birth. They outride the fury of all the storms and will sail on till

The stars grow old,
The sun grows cold,
And the leaves of the Judgment Book
unfold."

Their day is done; their sun is set. But from the scene of its setting there streams up a trailing brightness—the shining example of those who, while profound in science, wise in counsel and excellent in skill, were also sincere in piety, true in friendship and genial in intercourse. Their presence entered the sick chamber like a sunbeam from heaven streaming into a darkened room. Its mild radiance lingers in hundreds of homes and thousands of hearts. They burn as pure stars fixed in the surgical firmament, at which the great and high of all ages kindle themselves.

Report of Chairman on Materia Medica and Therapeutics.*

By A. J. Crowell. China Grove, N. C.

In studying therapeutics or the use of means to retain health, give ease and prolong life, and in contrasting therapeutics of the present day with those of Abernathy, Cheselden, Liston and others is it not perfectly natural with our present knowledge of histology, pathology, bacteriology, medical microscopy, and the splendidly equipped laboratories, for us to look into the future with greater hopes and brighter anticipations for therapeutics than at any era in the history of man?

For hundreds of years the most learned and aggressive men in the profession saw that the theory of a *contagium vivum* was the only rational explanation of the spread of epidemics. But the medical profession was forced to await the discovery and development of the compound microscope before the causative relationship of minute forms of life to disease could be demonstrated to the senses. It was then, and not till then, that it was positively determined that the infectious diseases were caused by certain micro-organisms.

The observations of Davaine and Pollander in the middle of the nineteenth century, followed by the faithful researches of Pasteur, Koch and others, have thrown much light on the etiology of the infectious diseases, and in fact lifted it from the uncertain status of speculation and placed it on the solid rock of science. No one would claim that the labors of the century just closing leave no field for the future investigator; but that the past investigations have laid a firm foundation, and that the field for future investigation is greater than ever before.

The Roman physician described the dates and varieties, the habitat and the peculiarities of malarial diseases, as accurately as we can to day. The use of arsenic or Jesuit's bark was well known to control them. But why some were quotidian, some tertian and some quartan we were as ignorant as the Roman until the microscope discovered the germ of malaria in the blood, and showed that its period of growth by fissure marked out the access of the chill into one, three, or four days interval.

Hippocrates advocated pure air, pure water and a pure soil as the requisites of health. Today we know why air may become impure, how water becomes infected with water-borne diseases, and by what means to purify the air, cleanse the soil, and thus prevent the spread of diseases,

In disease, Sydenham relied upon nature for the restoration of health. True, we still wait upon nature, but we also attack disease. We explore the cell for the germ. We locate, abort, eliminate the germ, which is present in each malady, and which affects, if it does not wholly cause it.

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*Read before the North Carolina Medical Society, May, 1898.

It is evident that chemistry and bacteriology must here do more than drugs. We can destroy the vitality of the common bacillus, the milk or water borne typhoid germ, the trichina of pork and many others by simple heat. Other varieties we attack by chemical solvents, and by inoculations of their products, so-called anti-toxins.

It is true that in these the closing years of the nineteenth century, a few deny the causative relationship of germs to disease; but, professionally speaking, these live in a past so remote that they need only be considered as of archæological interest. We will then start with the demonstrated fact that the infectious diseases are caused by micro-organisms and study the relation of bacteria and bacterial products to disease.

It has not, as yet, been fully determined as to how bacteria, or germs, produce disease and cause death; though several theories have been advanced, a few of which I shall mention.

1. That of mechanical interference: that the germs blocked up the capillaries and small blood vessels and emboli are formed. This theory has been almost abandoned.

2. That they cause disease and death by consuming the proteids of the body and thus depriving the body of its vital source, as proteids are necessary to the building up of cells, and micro-organisms feed upon proteids; but death occurs before a large amount of prcteids is consumed, and the symptoms are not those of general starvation.

3. That bacteria destroy the red blood corpuscles; but in some diseases they are not found in the blood at all, and their destruction has not been confirmed by microscopical examination.

4. The germ may, by its direct action, as a living ferment, or indirectly, through a soluble chemical ferment secreted by itself, split up into simple bodies some of the complex proteid constituents of the organism, among which there may be poisonous substances. According to this theory, the action would be similar to that by which the yeast plant breaks up sugar molecules into alcohol and carbonic acid gas.

5. A very plausible theory is that bacteria convert their food into a poisonous substance. It has been demonstrated that the pathogenic bacteria do elaborate poisons and that animals treated with these chemical products manifest the symptoms of the disease; and, in sufficiently large doses, cause death and sometimes produce the same lesions as that caused by the germ itself. Such animals are found to be more or less protected from infection by the same poison which in the first place generated the fever; or in other words are rendered immune.

Artificial immunity has been obtained also by the use of actual cultures of bacteria, by extracts of cultures, bacteria, etc.; but the most satisfactory results obtained outside the laboratory are in diphtheria, and this was done in an entirely different direction, that is, by the use of the serum of animals artificially rendered immune to the disease. It has been shown that the serum of certain animals not only hinders the development of certain species of bacteria, but also appears to destroy them. Some observers are unwilling to admit that the bactericidal power is a biological property of the serum, but rather think it an accident—according to some due to the presence of carbonic acid, according to others the simple phenomena of osmosis by which is produced a sudden transportation of the bacteria from one medium to another. The existence of the bactericidal power of serum, however, is certain, and has established the fact that the blood serum is not an inert material and will lead to important discoveries in serum therapeutics.

Berhing, in following out his studies upon the bactericidal action of the blood, soon found himself blocked in his conclusions on account of the development and persistence of the bacterium at the point of inoculation in refractory animals.

It was then a question as to whether the fluids acted upon the bacterium itself, or upon the products of their secretion, by neutralizing or destroying them. From this arose the discovery of the antitoxic power of the fluids and especially of the blood serum.

By mixing the toxins of tetanus or diphtheria with small quantities of the serum of an animal vaccinated against these diseases, we can inject the toxins into susceptible animals without harm. The result is the same if the mixture be made in the body of the animal instead of the test tube; and in fact the result is the same if the toxins be injected at a different time and place from the serum, and will protect the animal from many times the ordinary fatal dose of the bacterial poison. From this we are justifiable in the belief that the serum acts directly upon the microbic poison and destroys it, or at least transforms it into an inoffensive substance. It has been ascertained that 1 cubic centimeter of the serum of a horse vaccinated against tetanus was sufficient to neutralize in a test tube thirty times its volume of toxine. When serum is injected into the body, the animal passes, without presenting the slightest symptoms, from the susceptible to the refractory condition, and resists the action of the virus to which it was susceptible a few moments before. This condition passes away in a few days, but is important, as it can be used to prevent the spread of diseases in sudden outbreaks of epidemics.

The phenomena known as "Widal reaction" has justly given great hopes to the treatment of typhoid fever. It may be briefly described as follows: Add a certain proportion of blood serum from a patient suffering from well-developed typhoid fever to a bouillon culture, or watery emulsion of typhoid bacillus; and, in from thirty minutes to several hours flocculi, or clumps, will have formed throughout the mixture and fallen to the bottom as a granular sediment, leaving the overlying fluid more or less clear. From that it was seen that the blood of a typhoid patient contained a substance which sickened and destroyed the motility of the bacilli. This caused many efforts to be put forth to obtain a typhoid antitoxin with very hopeful results. Dead cultures of typhoid bacilli, grown in thymus bouillon, have been used by E. Frænkel in the treatment of the disease in fifty cases, with very satisfactory results. Some attempts have been made to treat typhoid patients by the use of serum derived from patients convalescent from typhoid fever.

In the so-called pyogenic affections, such as puerperal fever, erysipelas, certain acute abscesses, etc., a streptococcus is present. A number of experiments have been made upon the subject of this infection, and it has been found possible to render animals immune from this microbe and to develop an antitoxin in the serum at the same time. The application of anti-streptococcus serum to the treatment of diseases has been made in this country in septicæmia, malignant endocarditis, scarlet fever of septic type, and erysipelas with very encouraging results.

The possibilities of the utilization of this serum are great, seeing the wide range of septicæmic conditions and the tendency which so many forms of disease show to take on a septic character.

The observations of G. and F. Klemperer point to the development by the micrococcus of pneumonia of a septic poison, pneumotoxin, which in the tissues causes, by a reactive process, the development of its antagonist, or anti-pneumotoxin. It seems to me that these researches furnish a basis for a serum therapy, but no real advance has been made in this direction, though the serum of patients recovering from an attack of pneumonia has been injected into animals suffering with the disease with curative effects. The serum of rabbits, artificially rendered immune to the micrococcus pneumoniæ, has been used in man in a few cases of pneumonia with good results.

The treatment of tubercle by tuberculine injections has practically been abandoned; but the hope that some agent may yet be found which may confer immunity against the attacks of the bacillus of tubercle and act curatively upon those already infected, has by no means been abandoned. Quite recently Koch has advanced an improvement upon his tuberculine, by which he has been able to render animals immune and improve tuberculous foci in those that have been infected.

General bleeding, though fallen into disuse on account of its abuse, is a very valuable therapeutic agent. If you will consult the most recent researches on bacteria and their products, it would be found that bleeding is coming into use again as a means of removing poison from the body. There is certainly one condition in which it is very useful, whether it act by removing the poison or not; and, that is, in cases of coma due to kidney disease. In cases of uremic poisoning, when the patient is comatose, you can not do any harm by bleeding, and you will very likely do yonr patient a great deal of good. For my own part, I am inclined to believe that leeching, cupping, and bleeding are all, to a certain extent, forms of serum therapeutics; that, as a consequence of bleeding, we get a greatly increased transudation of juice from the tissues into the blood vessels. We thus alter the constitution of the circulating fluid, and thus are practically using serum therapeutics. We have not actually taken a bit of an organ or tissue, as we do when we heal myxœdema by introducing into the system the thyroid gland, or its juice, but we have taken their juices from the various glands and tissues of the patient's body by drawing them into the partially emptied blood vessels. By getting these juices from the patient's organs into his blood, we have altered the composition of the circulating fluid, and we are really trying a plan of serum therapeutics. This is a subject that I think would well repay a great deal of research, for the uses of tissues, tissue juices, and serum therapeutics are just the beginning of a new era in the treatment of disease; and when we understand the action and interaction of the various organs of the body upon one another, and how the removal of its juice from the one and its introduction into another will alter the physiology of the different organs, then we shall be able to use bleeding, not haphazard, but with our eyes open and knowing all about it, so that we shall avoid all of its dangers and gain all of its benefits.

Purging also tends to act as a process of serum therapeutics. You have on the passage of a purgative through the intestine, a quantity of fluid poured into the gut from its glands; but there is also a quantity of a different fluid going from these glands into the body, generally. At the same time, the purgative clears out the products formed by the innumerable bacilli that are present in the intestine and which have been shown to produce fever. Is not this the real secret of the good results derived from the Woodbridge treatment of typhoid fever.

To-day we expect to find each specific micro-organism producing its characteristic poison, or poisons, and much research is being made not only in the few diseases I have mentioned, but also in glanders, anthrax, tetanus, small-pox, and hydrophobia with very satisfactory results.

Then when we see the strides made within the last few years along this line, and the considerable reputation thyroid extract is gaining in the treatment of myxœdema and cretinism, the thymus in exophthalmic goitre, suprarenal extracts in Addison's disease, and the good results derived from other glandular extracts of the body, may we not hope, with these great discoveries in serum and glandular therapy, that the day is not far distant when we will have a specific, both curative and preventive, for all infectious diseases.

Expert Medical Witnesses: What is the Cause of the Seeming Disrepute in Which Their Testimony is Held in Certain Recent Cases in the Courts? Observations from the Standpoint of the Country Doctor.*

By J. Howell Way, M. D., Waynesville, N. C.

The criticisms given by the daily press of the country on the expert testimony in the recent noted cases in the courts where medical gentlemen, eminent in our profession, occupying positions of great responsibility to the profession as teachers and as consultants to the public, in that from the position accorded them by the profession they become men whose words weigh much with the laity, has evoked considerable attention from the writing part of the profession. Some of these articles, in common with all doctors who feel a lively interest in whatever pertains to the welfare of our honored guild, I have read with the greatest interest, feeling that out of the discussion would be evolved valuable suggestions.

For quite a number of years past the idea of an "expert commission," to be created by law, and to which all questions of a medical nature arising in the courts would be referred for examination and solution, has been periodically sprung on a suffering profession. Recently it is noticed that the same suggestion has been going the rounds of the medical press and is seemingly the more favored solution of this *questio vexata*. For a Republican form of government, it is more than probable that there are already too many men in "commission" to do this or that particular thing which the people could do for themselves in their own time and their own way, and perhaps equally well. Yet this idea of a commission advisory to the court, seems to be the favored solution, the main remedy offered on various hands for the abatement of what is claimed as the source of great danger to the future character and influence of the profession. It is difficult to see, however, how the proposed scheme could, if it were practicable to carry it into effect, possibly prevent the troubles of which the doctors complain in regard to the operation of the present system. Take for illustration the Carlyle Harris case in New York a few years since, or the more recent Leutgert case in Chicago; in each case we have some of the most prominent medical gentlemen in their respective cities going on the witness stand and flatly contradicting each other about scientific questions as to facts. Now if, as generally understood, science knows no variation, it consists of certain fixed laws. These gentlemen must have known what part of their testimony was scientific facts and what part was opinion, conjecture or possibility. Would medical men be more inclined to agree with one another before a commission than in the public's gaze in the open courts? Doubted. But it is assumed that the idea of a commission would involve the submission of medical points involved in medico-legal questions arising in the courts, to only men of special and profound knowledge. Just how this would make the matter better except for the favored few who constituted the commission, cannot in the present light be shown. The very prominent experts are the ones who (and it is said in all kindness of these gentlemen for we all have the profoundest respect and admiration for those who succeed in making reputations for themselves in medicine) are constantly getting into the newspapers with the odium of the court house "wranglings of the doctors" and resultant criticisms attached to them, and through them to the profession for which they are assumed to stand. It is my candid opinion that in the smaller cities of the country and the rural districts in general, where there are fewer or no professors of medicine, that the matter of expert testimony is developed in the courts with far less friction between the opposing sides and with a corresponding degree of credit to the doctors. This statement is made advisedly. In the past twelve years it has occasionally fallen to the lot of the writer to appear in the courts of his own and adjoining counties in the capacity of an expert medical witness, and he here records his court experiences as among the pleasures of his professional life. But certain rules have always been scrupulously followed: In the first place the witness has never bargained for nor received a fee from either side prior to his appearance in the court room. His cases have been carefully studied beforehand, and after conferring with the other medical men who were to appear in the case and adjusting any grave differences which might on first view have existed between them, gone on the witness stand and told in the plainest, simplest language possible, what he knew of the case, strictly avoiding as he would an Upas tree all professional technicalities. When my opinion is asked as to a question which I know is unsettled in the minds of the profession, or in controversy, I invariably after a word of explanation, confess my ignorance. And right here, I believe, lies the trouble with so many of the metropolitan medical experts—they try to know too much. Too vast an amount of professional or personal dignity at stake for the expert to say candidly, "I don't know!" And the clever attorneys fully appreciating this fact play on the doctor's weakness and when the proper time arrives the expert's testimony and his foibles are shrewdly dissected before the jury. And the lawyer only does what he ought to from the standpoint of his employer. I have no criticisms to make here of the attorneys. They can legitimately prey on any man who opens the way. My observation is, as a rule, that medical men are themselves responsible for the ridicule their evidence is occasionally subjected to in the court room. On every hand the fact is appreciated that marked advances have been made along the lines of human activity in the past two or three decades; in none has there been a greater degree of activity displayed or greater results accomplished than in the field of scientific medicine. Much real advance has been made, many valuable discoveries fraught with blessings to humanity have been brought to the light of our knowledge through the restless energies of thousands of indefatigable workers in the field of modern medicine. Far be it from the intention of the writer to cast one iota of obloquy upon the good work of our honored profession in detracting from the splendid record of progress in recent years; but, the practical fact remains, that every new idea has not, as some of our brothers would have us believe, been an improvement on the old or advance to the front. While the general tendency of our professional life in scientific work has been distinctly and emphatically forward and upward to the eternal light that illumes all things, yet it is to be remembered, to borrow the figure of another, that in our evolution some of the branches of the tree of progress grow upward and to the light, some grow downwards soon finding their terminal buds, some wither and die, and yet it takes all to make the tree; so as honest men we must admit that while substantial advance is made every day, we are even now absolutely in the dark as regards the correct solution of countless scientific problems in the mathematics of medicine.

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A distinguished savant makes an experiment to-day which he hopes will lead to something; the next day the details of the experiment are heralded the earth over as a most wonderful demonstration of established facts. The day following, the same scientist, or hundreds of co-workers in the fields of science, repeats the experiment and finds that a certain element of error, not calculated for in the original experiment, renders null and void the assumed conclusions of the first day. The general public is not informed of this, however. Later they find out the facts and then their respect for scientific expounders and their science is proportionately lessened. Witness tuberculin: Call to mind the excited throngs, both of students and afflicted, who flocked to Berlin during the few months following the announcement of Koch's discovery. To bring it nearer home, look at the history of vaginal injections during and after labor.

Only a few years since it was gravely announced by those high in authority in the medical world, that no woman should be permitted to bring forth offspring without her genitals being rubbed, scrubbed, scraped and injected with strong solutions of toxic drugs a certain number of times (the details of the process almost suggested Hahneman's directions in his "Organon" for preparing a "potency"), then a "pad" of the far-famed spices of the Orient was to be placed at the vaginal entrance to frighten timorous microbes away. Such was the dictum that with "professorial" sanction went out over the country; notwithstanding this, there were intellectual "giants in those days." who dared to reason for themselves and questioning said, is not this a violent perversion of nature's methods? And while many of the profession were for the time swayed by the injection idea (largely because it was "new" and "the latest"), there was a very large portion of the profession who rejected it as an illogical treatment. On my desk to-day lies an ably written article recently published, from the pen of an acknowledged authority on obstetrical science, inveighing against the practice of using vaginal injections in labor and criticising the monthly nurse for her disposition to use the douche whether so advised by the attending physician or not. Yet this article does not give a hint as to where the afore-mentioned nurse was indoctrinated with the supreme necessity of vaginal injections in labor. One of the first things we are taught as students of medicine from the chair of therapeutics is to. if possible, ascertain and then remove the cause.

Nothing in my professional work has interested me more than to trace, and when possible ascertain. the origin of the ofttimes (but not always), absurd or foolish ideas advanced by the laity as regards the nature or the treatment of disease. I do not say the ignorant laity, for my observation has been the chief difference between the ignorant and the intelligent laity is that the ignorant laity is just a generation or so behind the intelligent laity in — in what? In reflecting, with some modification perhaps, what was set forth at some time as gospel medical truth by the profession, or part of it. Hence the accomplished author above referred to would have done us all a kindness and performed a legitimate penance had he simply stated where the nurse imbibed her dreadful notions.

But this by the way: The idea of the writer is to direct attention to what he believes to be one of the, if not the chief, cause of the threatened disrepute into which it is gravely asserted expert testimony is in danger of falling, and incidentally to note that the general, every-day practitioner of medicine cannot afford to endorse such ideas as tend to produce the belief that relief is to be found in putting "in commission" certain gentlemen who will attend to the elucidation of medico-legal questions for the profession and for the courts. The severest wrangling over medical cases in the courts comes to-day when gentlemen of the class from which it is proposed that the commission be created, appear in the courts on opposing sides.

To get at the cause, if possible, of the trouble is our first duty; then, if possible, remove it. One of the dangers into which an expert, and the more reputation he has to sustain, the greater the danger, is likely to encounter, is that of knowing too much. If medical men were as ready to admit in the court room their real ignorance of many things as they are in the privacy of the consultation room, there would be far less wrangling of the experts, with the result that much more respect would be entertained for their evidenee. Doctors are ofttimes, rather than make a frank confession of ignorance, tempted to build upon one known fact in medicine, coupled with half a dozen may-bees or conjectures, a theory which, to be honest with themselves, they may believe. but do not and cannot know. This theory is then elaborated and given to the court as an exposition of the teachings of medical science. Now this is all wrong, but we do not need to invoke the aid of legislation to set such things to right, but rather the exercise of common horse sense. It is a family affair so to speak and should be settled by those most interested. In every case where medical witnesses are summoned, if these same medical experts will get together and calmly and critically review the evidence of each man, throwing out only what is conjecture, or rests on insufficient scientific foundation, leaving to be given out what is generally accepted by the profession as known facts; then later, when on the witness stand, with an eye more to trueness to professional honor than to being the plaintiff's or defendant's "Expert," tell what he knows and resist the allurement of keen-witted counsel to extract information which he does not possess, that man will retire from the stand conscious of having maintained his self-respect. He will also merit and receive that of the court. A proper appreciation of this plan ought to make it possible to be put into operation by the masses of the profession who have regard for their professional honor. As to the professional experts it is hard to say what they would or will do. Apply the method herein suggested to the practice of medical jurisprudence in the courts and it is not likely that self-respecting medical men will after carefully studying a case together, go into the court room and exhibit the spectacle presented in the recent Leutgert case, where given a small fragment of the upper extremity of a femur, one gentleman swore positively it, in his opinion, was the femur of a human female; the other with equal positivity asserted it to be the femur of a hog. On the day following the astute attorney produced in court bones known to have been derived from a chimpanzee, which bones were identified by the experts as human. Imagine the humiliating position of these gentlemen; amusing to the spectators, and disgusting to every plain, common-sense doctor who followed the testimony. Both medical men should have testified that the bit of bone was the upper end of the thigh-bone of an animal which brought forth its young alive; i. e., a mammalian, and mentioned some of the more common animals from which the bone might have come. They should have positively stated that with the very short fragment exhibited, it was impossible to say that it was or was not a human bone, (After days of wrangling this is really what their conjoint testimony amounted to!) This course would have saved their credit and that of the profession in general, which is always affected, more or less, by the action of its members. It is true this would have been indefinite, but (as the sequel proved) it would have been the truth, and when told in a dignified professional way would have enabled the doctors to have retired from the stand with more honor than attached to the experts whose, perhaps, too ample egoism led them to know too much. These gentlemen were acknowledged expert comparative anatomists.

The blunder as to the chimpanzee bones, the positive divergence of opinion as to the source of the piece of the femur exhibited to them, presuming as we do that the experts told what they believed to be the truth, proves conclusively that comparative anatomy is not as yet sufficiently an exact science to enable one, from only a small part of a bone, (unless it should be a part possessing some very special or pronounced processes or foramina, etc., rendering its character unmistakable), to positively identify it as coming from the body of a certain animal. Now to candidly admit this fact need bring no discredit to our profession or to the individual doctor so testifying. We are not expected to know everything in the court house, whatever may be the demands made on us in the sick-room. A clear recognition of this fact on the part of the profession, coupled with the sincere regard for stating, when on the witness stand, only what are known to be established facts, and a disposition not to allow the erudite attorneys to lead him to become a partisan, will, I think, contribute very greatly to advance the esteem in which medical expert testimony is held by the courts and by the general public.

These remarks, as elsewhere noted, are intended to apply more particularly to the general masses of the profession—the practical men who help Nature save and prolong the lives of their fellow-creatures. As for the professional "experts," if they want the legislatures of the country to look after them with disciplinary eye, I really see no objection (?) to *their* being put "in commission," or elsewhere. Seriously, cannot these very gentlemen, so very clamorous for special legislation, read the "signs of the times" better than to not see that the very fact of their more or less valuable services being had by either side in any case, carries with it the death warrant of the call for professional experts in the courts of justice? The American people are a very practical type, and a few more exhibitions of medical experts, a la Leutgert style, will make the masses feel that "these experts are all frauds"—exit the professional expert! But long after this *genus* shall have for remembrance only a "trace of mould" in the sociologic layers of the past there will be more or less frequent calls for some plain, practical observations on medical questions coming before them, from the plain, everyday, common-sense doctors who have opinions only about the things of which they know (and are not embarrassed at not knowing all things!) and not based on what might, could, would, should, or did not happen. Speed the day! But evolution, sociologic as material, is slow.

DISCUSSION.

DR. P. L. MURPHY.—I suppose it is expected of me to say something after I asked to have this paper read. I was very much gratified at the line the doctor took in this paper. In this connection I would say that in several States there has recently been appointed a commission, appointed either by the Legislature or the Courts, to assist the Courts in all questions requiring expert testimony. Recently I have seen some severe strictures on that course, as the doctor seems to say it is not practical. I don't know anything about that, but I do know that the point he made there that the experts shall hold a consultation on the two sides has been tried and worked admirably in one case. It was rather a celebrated case, I can't quite call the name of it right now, though it was a case in Maine, of a man who killed a bank cashier and escaped. The defence put up a plea of insanity, and among them were some of the most distinguished men of New England. The defendant's witnesses had the first attack at it. They seemed to have passed upon it, anyway they knew a great deal about the signs of insanity, when the State's witnesses hadn't seen it. The defendants objected to the State's witnesses examining it without their presence, and it was finally decided that they all should examine together. The man was a very shrewd, sharp fellow, and they had some difficulty in coming to a conclusion. The whole circumstances of the man's heredity and previous history and the manner in which the crime was committed, finally led them to agree that he was not fully responsible for the act, and I think that he was put in prison for life. That seems to me to be the solution, that the experts should meet and consult together and come to some conclusion among themselves if they can. I believe it is Charles Reade who says that doctors of different views should meet and agree on some line of treatment. I know on one occasion something of the sort came under my own observation, when two witnesses were summoned in a case, of which I was one, and I had gathered from my brother that he didn't have the same opinion that I had about the case, and I didn't want to have any court house scene, so I quietly asked him if we couldn't consult with Dr. Hay and agree on what we could testify. I don't know what course that we could get if our lawmakers should help us along in this expert testimony. There are a good many things that might be brought out that were mentioned by the paper. I would like to hear from some of the other gentlemen on this question.

The Country Doctor and His Work.*

By JAS. M. PARROTT, M. D., Kinston, N. C.

There is certainly no branch of our noble profession more worthy of the careful study which has been given it than surgery. Like every distinctive subject it has its own special and peculiar field of work, and the surgeon characteristics of his own. Hence in order that one may approach even closely to perfection in surgery, one must, of necessity, be peculiarly adapted to, and especially trained for, his work. Like the poet the surgeon is born, but unlike the former he must also be made. One may possess the natural endowments requisite for success in this particular line of our work, yet one would of necessity fail without the required training. Special preparation is as essential to success in this branch of our noble profession as it is in the diseases peculiar to the eye, the ear, or any other organ. While all of us cannot be experts in surgery, because of the lack of skill or the proper training, yet I do believe that the general practitioner can and should be more of a surgeon than the average one is. No man can be perfect in any one medical subject, and hence we should not expect to be perfect in all. Why then should we make ourselves believe that we are not competent to do surgical work because of our shortcomings and refer our patients to our city friends when they themselves are imperfect? Let us then study the subject closely, equip our offices with the instruments usually required in ordinary surgical work, and then do the work, thus saving our patients the annoyance and expense of traveling to and remaining in a distant hospital, and at the same time save to ourselves the remuneration and reputation which our city brother would thus derive.

I would not for a moment advise a tyro to endanger the life of a patient by performing, unassisted, a most difficult operation, but I do advise him to properly equip himself so that he can do the common surgery which he, as a general practitioner, may be called upon to do. But, says one, how can I, with limited means, equip myself with instruments and acquire the skill necessary to the successful prosecution of surgical work, and after I am prepared what results can I expect to obtain? The answer to this question, which has often been propounded to me, embodies the essential features of this paper, presented as it is in my own feeble manner, with the hope that it may prove of value to some one attempting or just beginning to walk in surgical ways.

It is needless to speak of the advantages of hospital experience to one intending to be a surgeon. Its value cannot be overestimated, but since it cannot be enjoyed by every one some substitute must be offered. To one without such opportunities I would say go to the dead-house and there learn the technique of every operation. Such instruction can be now easily and quickly obtained in any of our large cities. After thus becoming familiar with the instruments and operations one is then prepared to begin surgical work. At first one should only undertake the most simple operations, and then as one's experience grows, the treatment of the more difficult cases may be undertaken, thus gradually reaching the goal to which one aspires without ever being a tyro in the true sense of the word. The time-honored custom of studying with an old doctor as a preceptor give valuable assistance in obtaining experience which cannot be overestimated. Just here let me say that I regret most thoroughly the latter-day tendency to depart from this old medical usage, and I hope to see the day dawn very early when medical men, like the druggist, will be required to have some practical experience before they are allowed to graduate.

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*Read before the North Carolina Medical Society, May, 1897.

After the young surgeon has thus been gradually educated, and has by these means gained confidence in himself, and has learned the *modus operandi* of his instruments, he is prepared to branch out into a strictly surgical field. Without going into details, I shall discuss a few salient points of especial importance to the country surgeon.

To the surgeon perhaps even more than to the physician the question of nursing is most important. With the country practitioner it is often most perplexing and annoying. In almost every community there is some one who has a peculiar knack along this line, and after careful instruction by the surgeon concerning the particular case to be nursed, he can, by the close attention of the operator, render with wonderful skill the necessary assistance. In my own country surgical practice I often send quite a distance for a person who has nursed for me several cases of the variety of disease I am about to treat. In this way I find my work about as effective as that obtained by the assistance of the trained nurse. However, professional nurses are now numerous, they can be easily secured and should be, for a serious case, when practical.

The question of assistance at the time of operation is important. Of course in the country this is necessarily crude, but after a short experience one learns to meet single handed almost all emergencies. The rontine work of the asssistant can be easily done by a colleague, or by some one accustomed or adapted to such work. It is wonderful how nicely a non-medical man can assist in a surgical operation if he can be cool headed and possess a stout heart. I have for a long time and in many cases depended upon them almost and frequently entirely for assistance, and in no case have I ever been annoyed by their ignorance or hampered by their lack of experience. This may be due, however, partly to the fact that I have gradually grown accustomed to their lack of skill. The inexperienced assistant, like the raw soldier, does not know, and consequently cannot comprehend the dangers of certain emergencies that may arise, and so is not as easily rattled as the more experienced.

Every operator, and particularly the country surgeon, should always be on the lookout for any emergencies which may arise. Tact, skill and intimate knowledge of the physiology and anatomy of man and the therapeutic use of drugs are of course absolutely necessary to the successful management of many reverses, while the thorough acquaintance with the various uses to which the different instruments may be put will supply the knowledge needed in meeting the remaining emergencies. We should be so accustomed to our instruments that one may be very readily used, if necessary, for half a dozen purposes. For example if the needle holder be absent the artery forceps can be used in its stead, and when the dilator is not at hand the instrumental hemostatic may again be called into service. The grooved director, the chief use of which, in my opinion, is to aid the ignorant surgeon, may be used as a probe, while the probe can be used as an aneurism needle or a retractor. This diversified use of instruments not only obviates the necessity for so much apparatus but also aids in meeting the emergency of a broken or an absent instrument.

Just before each operation the instruments and dressings should be carefully sterilized. My own preference is the small Arnold's sterilizer. This can be easily heated on the common cook stove and may be conveniently carried in the buggy. The instruments should be carefully cleansed in carbolized water after each operation. They should be carefully dried before being replaced in the instrument case. When an operation is to be performed in the country or out of the office a medium size grip or brief bag, lined each time with a freshly sterilized towel is a very convenient case in which to carry the dressing and instruments.

The question of asepsis and antisepsis is really about the most important one likely to confront a country surgeon. Permit me to suggest that if the instruments are cleansed and kept clean as above described the problem of preventing sepsis is much simplified. In town and country surgery we are not annoyed by an impure atmosphere. This is most fortunate. Atmospheric impurities such as are found in our cities and hospitals are no doubt the cause of infection in 95 per cent. of the cases of septic surgery. Recently while in London I exposed a medium for seven seconds in a ward in a large hospital and in due time saw grow several very large colonies of infective organisms; later I exposed the medium in my office thirty minutes and failed to find any pus cocci. This to my mind explains the cause of the very remarkably low mortality in country surgery.

As to antiseptics I consider carbolic acid the best for all-around work, though for certain purposes, especially for cleansing the hands of the surgeon and the field of operation the bichloride of mercury is perhaps better. The hands of the surgeon should be thoroughly scrubbed with green soap and then carefully and slowly bathed in a 1–1000 solution bichloride of mercury, this being preceded by an application of alcohol or turpentine and followed by careful rinsing with strongly carbolized water. The patient is treated in a similar manner, the whole process being gone through very slowly and carefully. Because of the absence of septic germs in the atmosphere or on the instruments, this method is always sufficient. During the operation, of course perfect cleanliness should be observed and the wound carefully protected. Laceration and picking in pieces a wound by an unskillful or ignorant operator or the too free use of over-strong antiseptics during or after operation is more often the cause of the commencement of suppuration than direct or immediate infection. In my own work during the past three years I have not had a single case of pus formation following an operation and only one case of infection in accidental wounds. The value of the free use of boiled or sterilized water during an operation cannot be overestimated. I prefer the boiled water which has been carefully covered and allowed to cool to water which has been sterilized. The pans or bowls supplied by the family should be carefully washed with carbolized water before being used. The towels furnished by the patient should be boiled or if this is not convenient, soaked in carbolic acid solution. In laparotomies Thiersch's solution is a very valuable antiseptic and is to be preferred to any others.

The subject of dressings is very important. My own experience teaches me to rely on cheese cloth cut into the proper size. From sterilized cheese cloth we can easily make bichloride, iodoform, or carbolic acid gauze, by soaking it in the solution of the antiseptic we desire to use, and permitting it then to slowly dry. All our dressings should be kept in screw-topped jars, especially the medicated gauzes. Iodoform gauze can be easily made from iodoform emulsion but it is preferable to purchase this from some reliable manufacturer. I never depend upon or use previously medicated gauze except in emergency work. Just here let me say that in my opinion iodoform is not so good a germicide as it is a disinfectant, even boracic acid in many instances being better as an antiseptic. Mosquito bar cut and rolled in the proper manner forms not only the cheapest but the best bandage material. If it is dampened before being applied its efficacy is greatly increased. Bleached domestic is another valuable bandage material and can often be used to a great advantage. All of us can certainly afford a home made bandage roller, and, armed with this, our wives and sisters, in a few hours can make enough bandages to supply our wants in a great many cases; by them our cheese cloth dressings can also be made.

The emergency bag deserves our most careful attention; it is, second to the instrument case, the most valuable to the country surgeon. The most convenient case of this character is a 16 inch obstetrical, containing the following, viz: absorbent cotton, bandages and gauze, (may be medicated), a bottle of carbolic acid, four ounces of chloroform, two ounces alcohol, hypodermic tablets of morphia and strychnia, the instruments usually found in an ordinary pocket case, one large scalpel, dressing forceps, two pair Pean artery forceps, half dozen spear pointed needles one, skein of medium size braided silk, one tank of catgut, one Esmarch's constrictor. one Esmarch's inhaler, one small saw, adhesive plaster, collodium and cocaine. With this outfit ready one is always prepared to meet promptly almost any emergency that may arise. I was once enabled to go to a distance from my office, and with the assistance of Dr. John A. Pollock, to perform a double leg amputation within two hours after the injury calling for the operation had been received. No one pretending to do surgical work in small towns and villages can afford to be without such an outfit as before described.

The results of surgical work done in North Carolina are certainly surprising, especially to one who has not taken the trouble to look up the statistics on the subject. Save from the rarest and most difficult operations (and at the hands of some even from these) the mortality is less in North Carolina where most of us are denominated country surgeons than in the cities at the large and handsomely furnished hospitals. Let us all remember that McDowell and Sims and a host of other shining lights achieved their best results and acquired their beginning greatness as country surgeons. There are all over our beloved State, I am proud to say, a great many medical men who are quietly and unassumingly, but fearlessly, marching successfully along in the most difficult surgical paths relieving the distressed with a success which if it were known, would strike wonder to the minds of the outside world and really even to themselves. In no State in the Union, in no country in the world can there be found such men as these North Carolina surgeons are. Like Capt. Perry they can very truthfully exclaim, "We have met the enemy and they are ours!" Let us help them therefore and encourage them in every possible manner. Remember the best is not always in the distance. In this, as in all things else, let us as far as practicable patronize home industry and thus by helping them help and honor ourselves, always keeping in view that grand sentiment that the true surgeon is not necessarily of the city nor the guilded mansion, but he alone is worthy of our consideration who works for the relief of suffering humanity and carves if need be through the greatest difficulties to success.

Report of Chairman of Section on Medical Jurisprudence and State Medicine.*

By J. S. Brown, M. D., Salisbury, N. C.

As Chairman of the Section on Medical Jurisprudence and State Medicine my paper is constitutionally limited to a report on general progress in these branches. My co-workers will treat special features. However, I have learned of so little progress during the year that I shall take this opportunity for offering a few suggestions, in the hope that my successor will be able to report greater progress.

During the year the pestilence that once spread dismay and terror before it, and death and destruction and heart-rending scenes in its path, the pestilence that baffled all skill and caused the bravest hearts to quail and tremble at its approach—this pestilence has been about and within our borders. But the tyrant's power has departed. It has been robbed of its venomed sting. Despite the unholy protests of a few blinded laymen, our efficient health officers have vigorously supplied the people with the immortal Jenner's matchless life-preservers. With these virus points and isolation, we no longer fear small pox, for it can do us little harm. Scarlet fever and Diphtheria, too, have been held well in bounds by careful quarantine and antisepsis. The measles and the poor are always with us. Each demands much of our time and we need to turn over new leaves and new laws in regard to each. Much more damage has been done by measles than by any of the foregoing more dreaded contagious diseases. Then why not quarantine measles? It is not one of the necessaries of life. Hordes of its victims are permanently injured. It would not be a great deal harder to subdue than smallpox, and the saving to human life and health would probably be even greater.

But the really knotty problem in sanitary legislation is in connection with the apparently more mildly contagious, yet omnipresent and ghastly death dealing pestilence of tuberculosis. The merest novice cannot fail to realize that our health authorities should declare war on the invading hosts of tubercle bacilli; but the wisest sage has not yet been able to outline a perfectly successful method of expulsive campaign. Let us hope that the earnest workers along this line may keep on gaining ground against the enemy till the reign of tuberculosis shall be overthrown. With the Cuban situation before us we need to enforce yellow fever regulations with the utmost rigidity. As loathsome as our savage human enemy, its deadly blows are tenfold more destructive and more to be feared than the missiles of the treacherous Don. Doubtless our sanitary officers will look well after this dangerous matter.

Fresh proof is constantly arising that the newborn babe needs protection from the ignorance of the septically blind midwife. Would it not be well to have all physicians report all cases of ophthalmia-neonatorum that come under their observation, especially all cases that have resulted fatally to one or both eyes? That would afford such an irresistible volume of conclusive evidence that the blindest legislator could not fail to see the crying need of a law to protect the helpless infant not to mention protection against lacerating the health of the mother.

Much has been recently written about restriction in propagation of the feeble minded, epileptics and criminals. It is a well-established fact that criminals beget criminals just as surely as idiots or epileptics beget their kind. How much of this criminality is due to heredity and how much to training I am not prepared to say, but the fact remains that the almost invariable heritage we receive from criminals is the burden of caring for more criminals. While epilepsy is quite as hereditary as criminality or idiocy, its burden to society is not so great. Without referring to such noted historic characters as Napoleon, we often see epilepsy and great genius combined in an individual. Still this genius is often of an erratic nature, and often the epileptic degenerates into an idiot and becomes a burden to society. What shall we do with all these? The better class of epileptics may be educated to forego marital relations. But criminals and idiots and other degenerates need more than education. They heed not education. Then there should be legal restriction. How? That is the problem. Along this line we may add that many degenerates are supposed to owe their degeneracy to drunkenness, having been begotten by chronic inebriates or during a drunken debauchery. How can we eliminate this evil? Let us encourage all such noble associations as the W. C. T. U., and let us be more careful than ever to prescribe alcoholics only when they are unmistakably demanded, only when there is nothing else, like strychnine or ammonia or some sedative that would do as well or better. If we would do this, I believe we would not prescribe one ounce of alcohol where we now prescribe ten, and we would wash our hands of huddreds of doctor-made drunkards and their degenerate descendants.

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*Read before the North Carolina Medical Society. Charlotte, May, 1898.

The iniquity of the patent medicine business is so patent that there is hardly need of comment, but there is great need of legislative action restricting the evil. Let every bottle of patent medicine bear a label naming all the ingredients and the amounts of each ingredient in each dose. Let the State chemist collect and analyze samples from time to time, and whenever there is material variation from the printed formula let the medicine be prohibited from the State and let the responsible party be fined in proportion to the magnitude of the offense. Otherwise, so-called harmless soothing syrups will still go unpunished for numberless atrocious infanticides and Dr. Blankety Blank's Liver and Kidney Cure will still parley with the army of the credulous till disease and death have taken a relentless grip on the thousands of simple victims. Patent medicine of the baser sort personified, with all its irresponsibility, greed and frequent immorality is seen in the quack. Our State protects its sovereign subjects in some measure against these impostors. But, alas! their tempting license fees too often blind the officers of the law. They reap a harvest from the people and pay toll to the public treasury. But it is very hard to make the officers see that the frauds these impostors perpetrate and the robberies they commit on the public health and the people's pocketbooks ten times outweigh the paltry returns they get in the shape of a shameless license fee. The prescribing druggist, too, with all his infallible wisdom carefully culled from quacks and patent medicine advertisements and doctors prescriptions needs to feel the strong hand of the law. How often he undertakes to treat a case till he gives his patient a running start towards the undertaker and then blasphemes the physician for failing to head off the victim.!

A matter of vital importance—our meat and bread—demands our attention. Our proverbial charity has been used and abused by the public so long that many cease to credit us with it at all, and some even imagine that we are bound by law to visit and prescribe for all who call. It is unnecessary to remind you that the physician does a far greater gratis work than any other class of men. A part of this he does most willingly and cheerfully, this part being legitimate and praiseworthy charity. Too late he learns that another large part of his work has been gratis in the form of enforced charity, which bears no true kinship to the genuine article. This charity is enforced on all classes of men, but much more on the doctor than on any other. Because of it, many a doctor in this State is unable to collect more than 50 per cent. of his earnings. What enforces it? The fact that our laws provide for no way of collecting accounts from any one who is not, in his own name, worth more than the homestead. This iniquitous laws, or lack of law, is a good bait to draw all classes of frauds and scoundrels into our borders, and to educate our youth to rascality. Our sister States protect honest men from these cheating parasites. Their garnishment laws are not perfect, but they are much better than none. We physicians of Rowan have a law of our own, by which any member of our County Medical Association may place on our delinquent list, or black list as the laity call it, any one who refuses to pay his doctor's bills. Those so listed are not entitled to services from any member of the society until he makes satisfactory settlement with his creditor. This does much good; but still it is a very imperfect and unsatisfactory law. Physicians are liable to overlook names and unwittingly render service to those not entitled to it, thereby, perhaps, creating a flurry of ugly feeling between two physicians. But a greater objection than this is that the laity refuse to comprehend the meaning of this law, and allow it to build a barrier of coldness between the patient and the practitioner. It tends to array class against class, and leaves a wrong impression that the most genuinely generous class of men on earth have become a class of oppressors. This impression is radically wrong and unjust; but, where the physician, in self-defense, has to take the law into his own hands, it is very hard to avoid. Not for our special benefit, but for the sake of justice to all, let our legislative committee urge the passage of a garnishment law to this effect: That the wages, salary, or income of all persons in North Carolina may be garnisheed for proven accounts; that two-thirds of the wages, salary, or income shall be subject to garnishment only for provisions, board, lodging, house rent, fuel, lights, and clothing; that the remaining third shall be subject to garnishment for any other proven accounts except those before-mentioned; that such garnishment be given precedence to all other assignments or conveyances of any kind that might convey the wages, salary, or income from one of these classes to the purposes of the other. Such a garnishment law could hardly work hardship to the poor; for scarcely any family, however poor, spend two-thirds of their wages for the necessaries of life, as placed in the first class. It would turn many dollars out of the current of dishonesty and fraud and riotous living into the pockets of him who had earned them and needed them for the purposes of honest existence. In short, it would cultivate honesty and frown upon fraud.

One more matter which concerns every inhabitant: A day of disintegration and death is the coming lot of every human body. It has been the prevailing custom ever since the days of the patriarchs to bury the dead body. But custom often blinds us, or lets us look through glasses of prejudice, while we take the wrong road and do ourselves and our posterity incalculable harm. We are careful to disinfect the typhoid excreta that may be emptied on our water-sheds. In fact, at this day and time almost every foot of earth and water should be protected from such contamination; for there is hardly a foot but that might become a hot-house from which the multiplying germs might easily find their way back to the human system. While we are so particular about these dangerous excreta, what are we doing with our typhoid and tetanus corpses? Complacently burying them where every opportunity is afforded for the once victorious germ to be fruitful and multiply and replenish the earth and go on conquering and causing untold misery to mankind. How many other diseases than typhoid fever and lockjaw are propagated in the grave we do not know; but likely more than we are wont to recognize. Would we not do well to change a custom, even though it be as old as the world itself, for one less dangerous? for one that is in harmony with indisputable sanitary principles? If we would accustom ourselves to it, we would find the horrors of cremation much less revolting than the horrors of burial and decay in a gilded coffin full of slimy, writhing worms. Cremation is safe; burial is dangerous.

Let us sum up:

1. We are gradually gaining the mastery over some contagious diseases; but measles and consumption, and others, are still in full blast.

2. The new-born babe needs protection.

3. Propagation of criminals and idiots and other degenerates should be restricted if possible.

4. Our laws concerning quacks and other irresponsible prescribers should be more strictly enforced, and the mask should be removed from cure-all medicines.

5. Our State should no longer encourage rascality, but should make it possible for all her citizens, the doctor included, to receive their honest dues from the dishonest as well as from the honest.

6. Cremation means purity; burial means pollution; therefore sanitary science bids us exchange the old custom for the new.

The Tobacco Habit as a Cause of Disease*

By W. C. Brownson, M. D., Asheville, N. C.

I wish to preface my remarks by stating that I am in no degree afflicted with tobacco phobia.

I do not believe with Meta Landers, whose hysterical denunciations of tobacco may be familiar to you, that the tobacco user is a vile creature, or that he must inevitably suffer in his mental and physical being from his indulgence of the habit. Many persons derive much pleasure from the moderate use of tobacco and no possible harm, but many are less fortunate and are injured by it. Let us consider for a few moments some of the most common manifestations of its evil effects.

The symptoms presented in acute poisoning by tobacco are known to every one. The pale, sweat-bedewed face, the deathly faintness, the complete muscular relaxation, the feeble, fluttering pulse shown by the beginner after his first cigar or initial "chew," prove that tobacco is a most virulent poison; it is also a local irritant.

Nicotine, the active principle of tobacco, is, it is probable, responsible almost entirely for the deleterious influence of the plant, but it contains, in addition, various salts and an empyroumatic oil, the latter by chemical processes yielding numerous alkaloids scarcely less poisonous than nicotine itself.

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*Read before the North Carolina Medical Society, May, 1898.

Tobacco, it seems from experimentation, has no perceptible effect on the brain; its depressing action is exerted on the spinal cord and the sympathetic nervous system. Upon the heart it is said to have no direct effect, though by its depressing influence on the pneumogastric and the vasomotor system, the heart is powerfully influenced.

The effects of the tobacco habit may be divided into its constitutional or general, and its local or irritant results. As to the general systemic disturbances, the various modes of using tobacco, smoking, chewing, snuffing and dipping, have much the same action: though there are, without doubt, individual idiosyncrasies, on account of which, in the one case, smoking, in the other, chewing, may be better borne by the system, but the larger amount of tobacco consumed, the greater the amount of nicotine absorbed into the system, the greater the constitutional disturbance.

As with other narcotic poisons, tolerance varies widely in different individuals. No special number of cigars or pipes per day can be prescribed as being within the danger line. What is moderation for one person would be excess for another. Those of lymphatic temperament, large feeders with a good digestion, can, as a rule, use an amount of tobocco without apparent injury that would be ruinous to one of spare build, nervous temperament and poor stomach.

Age is a most important factor in the results of the tobacco habit. In the young, growing boy, tobacco causes its most serious effects, and chorea, epilepsy and insanity have resulted from its excessive use.

The various forms of dyspepsia, faulty digestion, both gastric and intestinal, are the most frequent evidences of the baneful influence of tobacco. In part, they result from altered or deficient salivary secretion; in part, from the depressing effects of nicotine on the nervous system. If tobacco is given up, a gain in weight almost invariably follows. The functional diseases of the heart, characterized by its rapid, irregular or fluttering action, are very frequently caused by the abuse of tobacco as all observers agree. These functional disorders may lead gradually to organic disease, to dilatation, hypertrophy and, perhaps, valvular changes. General arterio-sclerosis and angina pectoris are by some authorities said to be due to immoderate indulgence in tobacco. The manner in which these changes are brought about are not well understood, but, as is said by Page in his Physical Diagnosis, "It is so all the same." Tobacco, it would seem, has no direct effect on the heart, as after painting it with a concentrated solution of nicotine, the heart beats on apparently undisturbed. Probably "a deficient action of the pneumogastric" is brought about by the poisonous principle of tobacco, "whereby the heart is not properly controlled," or "to sudden vasomotor relaxations which, by dilating the blood paths, reduce the normal arterial resistance."

It is my belief that tobacco is one of the most fruitful causes of neurasthenia, and it was a surprise to find in looking over Beard's Classic "Treatise on Nervous Exhaustion" recently, that he nowhere mentions tobacco as a cause of the disorder. Certainly, very many of the symptoms that he so graphically describes—"the atonic voice," "the mental irritability," the "morbid fear" in its various divisions, such as "anthrophobia," (fear of man); "gynephobia," (fear of woman); "pathophobia," (fear of disease), etc., the frequent blushing, profuse sweating without cause, local spasms of muscle (tremor), nervous chills and flushes of heat, temporary paralysis, etc.—all these are met with in subjects of the tobacco habit. It is hard to fix the dividing line; it is a question often whether there be any dividing line between neurasthenia, hysteria, lithæmia, and we might add melancholia. Certain it is that all the various symptoms and manifestations described under these headings in our text books are met with in those who use tobacco to excess, and that they are caused by tobacco is evidenced by the fact that they either disappear entirely or are very much lessened in degree when tobacco is discontinued. All of the symptoms spoken of under neurasthenia may be met with in chronic alcoholics and also in those who are given to sexual excess. Therefore, it must frequently be impossible to decide which vice is the leading agent in the cause of these disturbances; but we will frequently be able to exclude any suspicion of alcoholic indulgence or sexual indiscretions, and to decide positively that the immoderate consumption of tobacco is responsible for the patient's condition; but to convince him of this fact, and to induce him to forego his unfortunate habit is often an impossible task.

Among the various toxic substances producing amblyopia or impairment of vision, tobacco is known by ophthalmologists to be one of the chief. The poisoning by nicotine occasions a retro-bulbar neuritis which may result, if the tobacco habit is persisted in, in almost complete loss of sight. Tobacco amblyopia is known to result most frequently in heavy smokers of the pipe, who consume the strongest and most juicy tobacco. Many a man attributes his gradual failure of vision to advancing age, when his fondness for a rank and ancient pipe is alone answerable for his condition. When the cause of the defective sight is recognized and the tobacco is abandoned, a cure usually results.

Certain other diseases, notably tabes dorsalis and general paresis have been charged to the account of tobacco, but there is not sufficient evidence it would seem to prove a causative influence. Enough has been said of the constitutional effects of tobacco. A few words now as to its local action.

The irritative effects of tobacco upon the mucous membranes are almost invariably seen, to some degree, in all who use it largely, in all great smokers certainly. "Snuffing" is practically obsolete in this country, and of its irritating effect on the nasal mucous membrane, we cannot judge by actual observation.

The habit of "dipping snuff" is very prevalent among women of the poorer classes in some portions of the South, and its evil results are manifold. In addition to the constitutional effects occasioned by this habit, shown in the muddy complexion, the dyspepsia, the palpitation of the heart and often neurasthenia and hysteria, there is the direct irritant action upon the gums; this is increased by the rubbing to which they are subjected by the snuff laden "brush" before it is tucked away in the cheek. A chronic gingivitis results, the gums recede from the teeth, the teeth drop out one by one, giving an appearance of premature and unlovely age to what should be a fresh, youthful, attractive face.

The chewing of tobacco, in so far as I have been able to observe, rarely causes local symptoms. The constant stimulation to the salivary glands, occasioned by its presence in the mouth, has apparently no injurious effect upon these over-worked glands, and the mucous membrane of the mouth, pharynx and naso-pharynx is apparently no more prone to inflammation in the chewer than in the non-user of tobacco. Constitutional symptoms are, perhaps, more frequently induced by chewing than by smoking. The confirmed tobacco chewer is rarely ever without his quid and is, therefore, more constantly absorbing nicotine into his economy than is the smoker.

Those who smoke to any considerable extent almost invariably present evidences of local irritation. In how much the irritation is due to the more or less heated smoke as smoke and in how much to the plant giving forth the smoke, is a question. It is very probable that the smoke from any dried leaves would have an equally injurious action upon mucous membranes as the smoke arising from burning tobacco. According to some authorities (notably Bosworth), the catarrhal inflammations found in the smoker are not due to irritation by the smoke, but to nicotine poisoning. However this may be, a large proportion of all smokers have constantly a furred tongue, most marked in the morning, and a bad breath. This condition, as a rule, does not indicate any special derangement of digestion, but is due to a chronic superficial glossitis. Cigar smokers are less prone to it than users of the pipe, and tobacco chewers are nearly exempt so far as my observation goes. The form of glossitis, commonly known as "black tongue," characterized by great elongation of the filiform papillæ, with a blackish discoloration over a circumscribed spot of varying size, may sometimes be caused by the irritation of tobacco smoke; the two cases I have seen, at any rate, were found in confirmed smokers.

Chronic pharyngitis and naso-pharyngeal catarrh are very common in those who smoke to excess. As I have said, Bosworth asserts that thsse cases are not due to local irritation from the smoke. but to the absorption of nicotine and the disordered stomach occasioned by it. It is probably true, as he says, that the smoke does not reach the pharynx at all in ordinary cases. Any smoker knows from occasional experience with a green cigar, or a very acrid tobacco, that the point of impact of the burning smoke is the anterior portion of the roof of the mouth and that no sensation of heat is felt in the pharynx. Beverly Robinson says nothing in his work of tobacco as a cause of naso-pharyngeal catarrh; neither does Morell Mackenzie mention it as an etiological factor. Other authorities, however, and I may instance Albert H. Buck, accuse tobacco smoking of causing a chronic irritation of the pharynx and resultant disease of the middle ear from extension along the eustachian tube. He says the man who smokes heavily frequently presents a pharynx strongly resembling that of a scarlet fever patient.

The hot smoke from a short pipe is more apt to influence the throat than is the cooler smoke of a cigar. Some men, while using the pipe, constantly suffer from a more or less pronounced naso-pharyngeal catarrh, which they are never troubled with when using the less economical cigar.

Tobacco smoking has been said to cause epithelioma of the tongue and lip. Whether it does so is a mooted point, but as any prolonged irritation may produce a malignant growth in a subject prone to the development of neoplasms, it is probable that tobacco is at least an occasional cause of cancer.

There is no object in extending the list of disorders occasioned by the tobacco habit. Enough has been said to show that it is a frequent cause of disease, while it induces many more or less alarming symptoms that may lead to real disease.

Tobacco is a potent agent for harm. It should never be used by the young, growing boy or by the thin, nervous dyspeptic. The physician should always point out its dangers when he suspects it to be doing harm, and insist that it be given up at once.

Dangers in Collapse and Pyemia.*

By Dr. J. C. Walton, Reidsville, N. C.

There is probably no subject of more interest to the surgeon than the treatment of malignant growths.

In view of the skepticism of any innovation in the treatment of these apparently hopeless cases, for disguise it as we may, it is unfortunately too true that hopeless recurrence is the fate of the greater number of those who suffer from sarcoma and carcinoma, whether they are operated upon or not.

Since the 17th century it has been a demonstrated fact that not only malignant growths, but chronic ulcers of the skin, lupus nodules, syphilitic sores, and allied affections, occasionally disappear with great rapidity after an attack of erysipelas, whilst the number of accurately recorded cases is not a large one, yet it is sufficient to demonstrate the truth of the proposition, that is not a mere coincidence.

Miss H—— consulted me in April, 1895, for an enlargement of the muscles of the calf of the leg, which gave her some pain and a great deal of uneasiness, being unable to walk or bear any weight upon that limb. In March, 1894, complained of pain and soreness in the leg, and in June following noticed a small swelling in the calf of the leg, with sharp lancinating pains. The swelling gradually increased in size, and the pain continued to grow worse until she was unable to bear any weight whatever on the limb. The swelling was confined principally to the central portion of the calf of the leg, and was a large, hard, smooth gobular tumor, with distended veins over its surface, the limb measuring more than two inches more than the other limb, the joints not being involved. Patient's general health, with the exception of an attack of rheumatism when a child, had always been good up to about a year before the appearance of this tumor, after the tumor her health failed rapidly from pain, inability to sleep, anorexia, etc. She had previously consulted a noted Virginia surgeon, who pronounced it a sarcoma and advised amputation at the lower third of the thigh. I concurred in the diagnosis, and after seeing the case with several experienced surgeons, who agreed in the diagnosis, we agreeing that it was a case of central sarcoma of bone, myeloid variety. These tumors take their origin from the medullary cavity of the bone, and grows slowly on account of the mechanical obstruction, which is offered by the bone, after a while the tumor breaks through the bone by pressure. The patient declined an operation. No other course being left, I commenced on Colles' treatment of the mixed toxins of the streptococcus of erysipelas and the bacillus prodigiosus. On the 18th of May, 1895, I commenced treatment by injecting the fluid deeply into the tumor, commencing with one drop, increasing to four, but could never get beyond that point. The injections were followed by severe chills and high fever, the temperature frequently running up to 104 to 106 with intense nausea and vomiting, weak, rapid pulse, muscular twitching, and more or less collapse. Kept up the injections until August 1st, she being unable to stand more than two a week. Under this treatment the tumor became circumscribed, with redness of skin, pain, fever, etc. Her general condition gradually grew worse under this treatment. The tumor first began to soften in July, with slight discharge. On December 13th, cut down on the tumor and curetted away a part of the mass. Owing to the hardness it was impossible to remove much of it. The tumor being very vascular the hemorrhage was profuse. In the middle of December did a second operation, and January, 1896, did the third and last operation, removing, at this time, a large quantity of a marrow-like, gelatinous substance and a large portion of the shaft of the fibula. A week after this operation, a secondary hemorrhage occurred, which came very near proving fatal before my arrival. A few days after this, I removed a hard, black looking substance as large as a hen's egg, which was very offensive. From this time on patient's health rapidly improved, the cavity soon filled with healthy tissue and in a short time she was discharged as cured. At present she is in good health and is able to walk without a cane, and suffers no inconvenience, except a little weakness in limb from loss of bone. Part presents a normal appearance.

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The most eminent authority on pathological surgery in this country, Nicolas Senn, asserts that sarcoma of bone is met with clinically more frequently than sarcoma of any other organ or tissue. One of the distinctive features between sarcoma and benign tumors of bone, is the local extension from tissue to tissue irrespective of its anatomical structure, the joints are not usually affected in sarcoma. While in tuberculosis the epiphyseal extremities are effected and the adjacent joints frequently. The treatment of inoperable sarcoma by this method should be encouraged and persistently carried out, and he emphasizes that it would be advisable to treat such cases after operation to prevent recurrence. It is impossible to explain satisfactorily the origin of the tumor from the existing normal connective tissue, without assuming the presence of a localized specific microbic cause.

Moullin, an eminent English author and surgeon, in a recent paper in the Lancet, asserts that the treatment by Colles' fluid holds out the greatest amount of hope in the treatment of sarcomatus growths. He reports ten cases treated by this method. Three cured; two improved; one discontinued treatment; two no effect; and two deaths. And Moullin referring to Colles' cases says that they have been thoroughly verified and authenticated, and that they are neither few or doubtful. It is no small achievement to save the lives of nine patients who have been given up hopeless and that one single positive result is worth any amount of negations, and that there is no other method of treatment, except infection with the streptococcus of erysipelas itself, of which this can be said. Dr. Colles reports ninety cases: Thirteen entirely disappeared; nine of these no recurrence, from two to four years since treatment; thirty-three improved; forty-five showed no change; and three died. The diagnosis was verified by microscopic examination in all these cases except one. They were all inoperable, and many had been given up as absolutely hopeless. Colle's method is to begin with a small dose, 1 m., gradually increasing until the reaction reaches 103 or 104, the temperature has been the chief guide in regulating the dose and very little benefit has been noted in cases in which no reaction was obtained, the results vary greatly with the strength or the preparation, the most virulent cultures giving the best results.

Wyeth says that the prognosis in erysipelas is favorable in the vast majority of cases and this should encourage us in advising artificial inoculation of this disease in certain malignant growths as sarcoma in which *without doubt*, cures have been effected by the institution of acute septic infection.

DISCUSSION.

Dr. Robinson.—I had the opportunity to see this case, and I am satisfied there could be no doubt in any one's mind who saw it but that it was a case of sarcoma. When we are cognizant of the fact of how frequently these cases have been operated on, we can well pause and consider this means of treatment. I was treating at the same time that I saw this case of sarcoma of the osteum in which after two months treatment with the serum it had entirely disappeared. If so able a surgeon and expert a man as Nicholas Senn will advocate the use of the serum even after these operations to prevent a recurrence, it seems at least that he must have confidence in it rendering immune the system and of curtailing its ravages. The fact that this was followed by no pus, or that there was no pus found during the operation, would indicate that it was not a case of sarcoma. The fact that it did not extend to the joint would indicate that it was not of a tumorous nature. It progressed from the time that the treatment commenced, and although the result did not occur until a long time afterwards when the bone was removed, yet so far as muscular tissue and other tissue were involved, there was no progress. In regard to the danger of sepsis following the use of the toxin from suppuration, I would just mention here in regard to a case that I saw in which we had suppuration, sepsis, diarrhea, inability to retain food, were relieved entirely.

In the remarks this morning that were brought out in the discussion on serum, I have no doubt that in many other affections in which are past operations, etc., we would get valuable aid from using toxins. I think this matter is one well to be considered and discussed. I think the Society is due thanks to Dr. Walton for this paper.

Dr. Jewett.—In view of Dr. Colles's fracture that he has reported, there must be some truth in his statement in regard to the value of erysipelas toxins, but there are a great many of the foremost surgeons of the country who have never had any good results, but still we have to accept what these men have told us, or there is either a mistaken diagnosis or else they are deliberately falsifying. I have had one case in which I have used the toxin in the case of sarcoma of the lower maxillary which was operated upon twice, operated upon by Dr. Welsh. I asked him if he would use the erysipelas toxin. He said he would, but he had never seen any good results from it. I went on and saw Dr. Colles and he didn't give a great deal of hope. He suggested that the toxin should be used, and I got him to prepare a vial. I commenced the treatment with an injection of a half minim. It was followed in a very few days by a very severe chill, and the constitutional symptoms were very marked, and the temperature went up to 103. In a couple of days I increased it to one minim. The reaction was just as marked. I carried it up to almost three minims over a space of seven or eight days, and saw no evidence of any result except probably a more rapid growth of the tumor, with a very great deal of discomfort to the patient, and I discontinued it. This is only one case. I would hate to try it unless it was a very hopeless case.

Dr. Robinson.—The temperature went in almost every case to 104. Inflammatory conditions may have accounted for it. I should require a precedent for the use of it.

Dr. Minor.—I would like to ask Dr. Jewett whether before his injection he determined the fact whether the cells were round cells or spindle cells. The round cell has heretofore never yielded to it. He could hardly expect much result even according to Colles' own statement.

Dr. Walton.—I feel very thankful to the gentlemen for the discussion of the paper, and as the doctor has just remarked that Colles does not speak well of the toxins in the round cell variety, the best results have been gotten in the spindle cells, and in this case of mine the temperature at times ran up as high as 106, and the patient would be seemingly very alarming, but I persisted and ultimately cured the patient. If I had gotten discouraged in the start, this would have been a failure. I attribute success in this case to persistence. I kept hammering away at it, and finally it did come around all right. It undoubtedly produces systemic effects, and depresses a patient very much, as Dr. Jewett said, and in my case at times the symptoms of collapse were very striking.

Cold Water in Typhoid Fever.*

By R. H. McGinnis, M. D., Charlotte, N. C.

Being an embryo, so to speak, in the medical profession, and my first appearance before your honorable body, it becomes me to say that my paper will, no doubt be accepted with more or less hesitancy.

I will not attempt, in the time allotted me, to cover the whole literature embraced in the therapy of cold water, neither will I burden you with a rehersal of all that has been written on hydrotherapy in the management of typhoid fever, but will endeavor to place before you some simple thoughts and suggestions, with the report of two cases which came under my direct charge in the Maryland University Hospital during the past year; the first case having some of the many pathological conditions produced by the fever germ; the other, the advantages offered by hydrotherapy in the management of a much complicated case.

Since the introduction of the antitoxine treatment of diphtheria by Behring, of Germany, and its wide spread acceptance by the profession in recent years with such remarkable results, reducing the mortality from this most fatal of the diseases of children from 50 to 60 per cent. to less than 20 per cent; the minds of pathologists and bacteriologists have, and most naturally, turned to the investigation and experimentation following similar lines as did Behring, Koch, Pasteur and others, to elucidate a serum which would be antagonistic to those toxines liberated in the system by the growth and development of the typhoid bacillus.

At the present time little or nothing is being published by those making such investigations and the general profession as well as bacteriologists are eagerly and anxiously expecting such a discovery, and we can not but think that the dawn of the twentieth century will disclose this great agent.

Several investigators have employed an anti-typhoid serum in the treatment of typhoid fever, and their report of something over one hundred cases has appeared and not with such discouraging results, most notable among them being Fraenkel, Manchet, Rumpf, Kraus, Boswell and Pfieffer. The first four observers report nearly one hundred cases, and their conclusions were that the course of the fever was slightly influenced, pyrexia occurs in a shorter time, with a general improvement of the feelings of the patient and disappearance of delirium. The last two observers noted no specific action, reporting a smaller number of cases.

When such an anti-typhoid serum has been isolated and its employment embraces a large part of the profession, I can not believe that the mortality from this dreaded disease will be materially lower than by the use of cold water, when judiciously employed, which is less than 5 per cent. in hospitals, and in private practice very much less than this. Although hospitals, as a general rule, receive their patients in the second and third week of the disease, the mortality in the Maryland University Hospital for 1896 was only 2 per cent., and for 1897 was only 3 per cent.—about one hundred cases being treated each year. During the fall and winter of 1896–7 fifty consecutive cases of typhoid fever were treated in the University Hospital and not a single death—all receiving the cold bath.

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I would not lead you to think that I believe that every case of typhoid fever required the cold bath. There are many cases, and especially if not treated before the second and third weeks, where the cold bath would be absolutely harmful; but these are the cases where the cold sponging and cold-pack plays such an important role. On the other hand, I have seen cases where the sponging would invariably produce collapse, with extreme cyanosis and feeble pulse, and when put into a cold bath, beginning at 80 degrees F., and gradually lowering it to 65 deg. F., would almost immeniately show signs of improvement.

During the second and third weeks the cold bath must be employed with the utmost care and diligence, every symptom carefully noted, and if the patient's condition will not permit of this measure, the cold-pack or sponging may be substituted; but if the bath be employed from the beginning, there is little need for any substitute during the third week as I have noted during my residence at the hospital and observed about one hundred and fifty or two hundred cases.

When the bath is judiciously employed it greatly adds to the general comfort of the patient not only by reducing his temperature, but by accelerating the circulation, which is much below normal, arterial tension being extremely low, due to the hebetude and listlessness of the patient; stimulates reflexly through the skin and underlying tissues all the reflexes, especially those of respiration and the heart, bringing about an equilibrium in the heat producing and heat radiating centers as is shown by the natural sleep, the patient often falls into after the bath, and lessening of delirium and producing a gentle perspiration. By contracting the arterioles of the surface of the body more blood circulates through the liver, that great barrier to auto-infection, stimulating it to greater activity thereby eliminating from the blood much of the toxines of the typhoid germ. This action I believe to be an auto-serum action, where the patient himself is made to produce a serum in his own tissues antagonistic to the infection.

It was found by Widal, Pfieffer and others in their search of the action of the blood on various bacteria that blood from a typhoid fever patient would cause the immobility and clumping together of the active typhoid bacillus, showing that the patient produced in his own tissues a substance antagonistic to the toxine produced by the germ. This reaction met with merited favor, and in this country was clearly demonstrated a diagnostic feature of the disease, by Johnstone before the American Congress of Physicians held in Buffalo, N. Y., in 1897, and later, the same year, at Philadelphia. He ordered blood sent him from patients suffering with various diseases, and in every case of typhoid fever this agglutination reaction occurred.

A drop of blood is taken on a cover glass, under aseptic precautions, and diluted ten, twenty, or thirty times, it is then turned over on a glass slide with a small excavation, into which the bacillus, from a fresh culture, about thirty-six hours old preferably, had been placed. By the use of the oil of immersion lens, and better by artificial light, the germs are seen at first floating in the fluid and very active, they gradually become less and less active until finally they clump together in various size clumps, and become completely immobile. It generally requires from one to two and one-half or three hours for a complete agglutination.

In many cases during the last few years, where the diagnosis of typhoid had been confirmed, the post mortem examinations have shown various and extremely interesting lesions; some cases in which no evidence of the disease existed in the alimentary canal, while pure cultures from various other organs affected showed only the typhoid bacilli. No organ or tissue of the body is exempt from its invasion.

Several cases of fatal meningitis, empyema, pericarditis have been reported, and two cases where the bacilli were found only in the gall bladder, and many cases of pneumonia, one occurring in the Maryland University Hospital this past winter which I will briefly call to your attention.

N. A. White, male, age 24, sailor, Greek by birth; entered hospital February 22, 1898, in a very emaciated, feeble condition and speaking modern greek—no previous history could be obtained. Temperature 101¾, pulse 96, respiration 24 at the time of admission and cold, clammy condition of body. Stimulating him freely I made an examination after two or three hours finding a pneumonia of lower right lobe, tympanitic and very tender abdomen. His pulse and respiration gradually increased, and he died seventy-two hours after admittance.

A post mortem examination revealed a perforation of small intestine at site of one of Pyers' patches about eighteen inches above the cæcum, and a general suppurative peritonitis. Culture taken from peritoneal cavity, and pneumonic lung revealed the typhoid bacillus. His pneumonia preceded the perforation of the intestine showing that it was not produced by extension from the peritoneum. Such a case is beyond the aid of the physician, but in those cases where no intestinal lesions exist and the disease is limited to other organs, it is very obvious that the internal administration of drugs, save those for stimulation and nutrition, will not benefit the patient, but on the other hand be very detrimental, especially those that cause frequent movement of the bowels. The disease is evidently one of general infection and not one of intestinal origin alone.

The other case I wish to report is that of a married woman, age 20, the mother of two living children, German by birth, understanding very little English. Previous history negative. Was taken with a severe chill on July 29th; no treatment until brought to hospital at 9 p, m., Aug. 4th, seven days after chill, with temperature of $105\frac{2}{5}$, pulse 132, respiration 52. Diagnosis of typhoid fever made and stimulants ordered consisting of strychnia gr. 1-30 every four hours, whisky ℥ ss. every two hours. At 9 o'clock a. m. next day temperature $104\frac{2}{5}$ deg's., temperature being taken every three hours. Widal reaction confirmed diagnosis.

A copy of her chart I have appended will show that she received a bath every three hours with four exceptions, two at 6 a. m. and two on the night of the sixth day when she was delivered of a five month's old child at midnight. Patient began to improve from very first bath and although delirious upon entrance it all disappeared after the second bath. No tympanitis after second night. Constipation prevailed throughout the entire period of disease, mostly relieved by enemas. Milk diet and the strychnine and whisky was all that was given internally. Temperature assumed its normal on the eleventh day after admittance and remained within normal limits until discharged from hospital.

DISCUSSION.

Dr. Taylor, of Richmond, spoke on Surgical treatment of typhoid fever as follows:

I wish very much that it was within my power to tell this society something that it does not already know about the surgery of typhoid fever. It is comparatively a new feature but a very important one, and one of which we will in the future hear a great deal more. I shall be glad, however, to tell you of my limited experience. I say my limited experience because I have only had an experience of three cases, but those three cases were sufficiently impressive to teach me that there is a possibility of accomplishing good if the opportunity is taken at the right time. The first case came under my observation probably about a year ago when a young man who had typhoid fever was practically convalescent and probably had no fever. I was sent for early one morning and informed that that night he had a chill. I recognized, not only from the increased temperature but from the rapid breathing and inflammation of the peritoneal cavity the fact that hemorrhage had occurred. Prior to that there had been no hemorrhage and no evidence of ulceration. I attended this case and saw that this young man had septic peritonitis, and the only possible hope for him was in a surgical operation. His friends opposed the operation, opposed it for probably three days. At that time his distended abdomen, his depressed condition and all the evidences of septic peritonitis told them that the end was evidently very near. Then they importuned for the operation. I should not have consented, because operating upon a case in the last stages perhaps deters some one else from being operated upon who has a chance for life. It did so in this one instance, it deterred a subsequent patient from being operated upon. But I did operate on this young man, opened the abdomen in spite of the long time, and found that about one-half of the abdomen contained an enormous abscess of fecal matter, and that the intestines had become massed and matted together. In spite of the terrific inflammation, nature had been equal to the task of making some resistance. That patient died. The next patient that I saw lived next door to that young man. Curiously enough she dreamed that she had typhoid fever and that the doctor wanted to operate upon her, several days before, and she implored her husband not to let the doctor operate upon her; and so when she developed perforation her husband had promised her that she should not be operated upon. In forty-eight hours she developed aseptic peritonitis and died All three cases that have come under my observation were allowed to go on from bad to worse before operative interference was sought, and in those cases we found suppuration or septic peritonitis to contend with. Two or three sutures applied to the little pin hole perforations as soon as the diagnosis should have been made would probably have saved the patients' lives. This experience of mine is worth very little except as an introduction to the subject as it has occurred in the hands of other people. Other surgeons have not been so unfortunate. I think that as many as 20 per cent. of the cases that have been operated upon in this country have been saved. I am not absolutely accurate as to the statistics, but about that proportion. It is an open question, a question that is very open in my mind whether or not it is possible for a patient to have a perforation through the ilium with the constant disccharge of fecal matter and spontaneous recovery to occur. Nature is rarely equal to the task of making any effort to stop up that perforation. By operating 20 per cent. can be saved and 20 per cent. is the record of cases operated upon in all stages. What would be the result if those patients were operated upon prior to the event of suppurating peritonitis, prior to the disastrous consequences to the peritoneal cavity? It is not such a desperate operation if done in the inceptive stage. I say it offers encouragement in the future for a new field of surgery.

Dr. Taylor was asked to describe the operation and said:

The operation doesn't differ materially from the other abdominal sections. You open the abdomen and cleanse it, and the sutures are made in the intestine, usually only one, and I say if done prior to the advent of suppuration and septic peritonitis it may be almost classed as a minor surgical operation. Not so, however, if we have suppuration and septic peritonitis to contend with. Then it is an operation of the greatest moment.

Report on Pathology and Microscopy.*

By W. T. PATE, M. D., Chairman, Gibson, N. C.

There is no striking progress to report for the past year. Most of the work has been done in clearing up preconceived ideas. Instead of writing a summary of the advances I will leave this field to those who may present papers on special subjects connected with this section; and report some diagnostic laboratory methods, which I have found useful in town and country practice. Of course, these methods, are essentially the same as are employed in all clinical laboratories modified to suit the conditions incident to private practice. I am convinced that a great many physicians feel the need of these helps, but are deterred from using them by the impression that the necessary technique, requires great skill and is too time-consuming to be practical. But this is not so, and while we hesitate, there is a growing tendency in some quarters, to doubt the correctness of the general practioner's diagnosis. And we foster this doubt to some extent by neglecting to use these methods, which alone would place our diagnosis above suspicion.

So let us face the fact that the progress of modern clinical diagnosis has imposed upon us new obligations, and we must meet them.

Already too many cases have gone off to be cured by humbugs, after a grave prognosis by a physician based mostly on finding albumin in the urine; too many cases of so-called diphtheria cured by turpentine vapor, sulphur or calomel; too many cases of typhoid fever cured by special forms of treatment; and too many mistakes made in the name of malaria. Faulty diagnosis is the incubating oven in which are hatched and propagated most of the "cures," "treatments," and other humbugs with which the profession is afflicted.

I would not be understood as under-estimating the heritages of our forefathers, nor upholding those who would make mere machines of themselves by purely mechanical means of diagnosis, but rather as commending the practitioner who brings to his work all of the means of diagnosis, both at the bedside and in his office laboratory. His office laboratory should be equipped with a microscope, with accessories including a condenser and an oil immersion lens, a sterilizer, incubator and centrifuge, along with such glassware as test tubes, slides, cover-glasses, Petri dishes, flasks, pipetts and a number of reagents. To these may be added a microtome, hæmotokrit and paraffin-bath as his necessities may demand, and his time may admit.

Different kinds of culture media and a reliable culture of the typhoid bacillus are absolutely necessary. To the physician who lays any claim to keeping abreast of the times, the possession and use of this outfit is as essential to his practice as his thermometer and stethoscope. It is no longer sufficient in suspected kidney diseases to examine the urine for albumin and sugar, but in addition to these tests the specimen must be centrifugated and carefully examined microscopically.

It is impossible for any physician however great his skill or extensive his experience, to make a positive diagnosis of diphtheria by physical symptoms alone. He must use the test tube, incubator and microscope to prove the presence or absence of Loffler's bacillus. He owes this to himself and his patient that the proper treatment may be instituted; to the patient's friends that they may not be compelled to isolate a patient suffering from a benign trouble; and to the community that its members may not be exposed to a dangerous, contagious disease. The tubes that I exhibit and which I have been using in making a diagnosis in suspicious cases of sore throat were designed and kindly prepared for Dr. Anderson and myself by Dr. Kenyoun, of the Marine Hospital service. They are 16 c. m. long, 12 m. m. in diameter and are slightly constricted about 4 c. m. below the mouth. They contain Loffler's blood serum mixture, are hermetically sealed above the cotton plug and will keep indefinitely. When one of these tubes is to be used the top is broken off at the line scratched by a file on a level with the cotton plug. No antiseptic application having been made to the throat two hours previous, the throat is mopped with a sterile swab, the cotton plug removed from the tube, and the swab brushed gently over the surface of the blood serum, and the plug replaced. The tube thus inoculated, if away from the office, is wrapped in tissue paper and placed in the inside vest pocket to keep it as near the proper temperature as possible until it can be transferred to the incubator. After remaining in the incubator at 35 deg. to 37 deg. c. for 12 to 24 hours cover-slip preparations are made in the usual way from the growth on the blood serum, stained with Roux' dahlia and methyl green stain and examined under an oil immersion lens.

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*Read before the North Carolina Medical Society, Charlotte, May, 1898.

The formula for this stain is as follows:

Saturated alcoholic solution of dahlia,	1 cc.
Alcohol (ninety per cent.),	10 cc.
Distilled water,	100 cc.

This is marked solution A.

Saturated alcoholic solution of methyl green,	1 cc.
Alcohol (ninety per cent.),	10 cc.
Distilled water,	100 cc.

This is marked solution B.

Take one part of solution A, and two parts of solution B, mix and filter.

These bacilli stain well with Loffler's alkaline solution of methylin blue, and by Gram's method; but the stain recommended above brings out the rounded ends, and beaded or granular appearance of the bacilli beautifully.

The importance of the microscopic examination of the blood in making a diagnosis of malaria was discussed by Dr. Whitehead and Dr. Royster in short printed papers at our last meeting, and requires only a passing notice now. It was shown that the only positive proof of malaria is finding the plasmodium in the blood, and that without this proof we are liable to many grave mistakes. The technique suitable for these examinations in private practice was given in detail. It is also considered unnecessary to call attention to the microscopic method of examining sputum, pus, etc., which requires only stained cover-glass preparation, and which, perhaps, are already in general use. The demonstration of the practical value of the Widal serum test for typhoid fever has greatly simplified the differential diagnosis of continued fevers, and other affections with which typhoid fever is frequently confounded. It has given us a method by which we can positively identify or exclude from our diagnosis a very common and wide-spread disease.

The method which I have employed, and which seems best suited for use in general practice is the drop method of Wyatt Johnson. Cultures of the typhoid bacillus is kept in test tubes on about 5 cc. of glycerin-agar. When a test is to be made 5 cc. of bouillon is added to the glycerin-agar culture, and some of the bacilli scraped off the agar with a sterile platinum needle. In 12 to 24 hours we have a rich bouillon culture. The patient's finger tip or lobe of the ear is washed in alcohol, then in sterile water, is punctured and a large drop of blood is expressed into the depression of a hollow ground slide. This drop of blood is mixed with four drops of sterile water. From this diluted serum is made a hanging drop by taking four parts of serum and mixing with one part of the bouillon culture of typhoid bacillus and examined with an oil immersion lens. This is a dilution of about 1 to 10. This method is rapid and accurate. In cases of typhoid fever the reaction which consists in loss of motility and clumping of the bacilli is observed in from 5 to 30 minutes. I have applied this test to 37 cases, clinically diagnosed as typhoid fever. The reaction was complete in 31 of these, four was proven to be malaria, one streptococcal sore throat, and the remaining case was not tested after the tenth day, but its subsequent clinical history indicated tyyhoid fever.

I conclude that upon a correct diagnosis depends all intelligent management and treatment of disease; that many cases cannot be coerectly diagnosed without the use of these laboratory methods, and our personal responsibility and obligation to our patients demand that we use them.

Uric Acid in the Causation of Retinal and Choroidal Disease.*

By GAILLARD S. TENNENT, M. D. Asheville, North Carolina.

It is refreshing in these days when we hear so much of microbes and the germ theory, to turn our attention occasionally to subjects which are, as yet, free from their inroads. As a topic for study, uric acid is unique from this point of view, as well as from the fact that urea, its near relative and partner in the excretion of nitrogen, was the first animal substance produced artificially in the laboratory. As far as we know, its production is due to physiological processes, and its abnormal retention in the body is due to chemical changes alone.

The tendency to an abnormal retention in the blood of some of the uric acid, which should be wholly excreted by the kidneys, or, as it is usually termed, the uric acid diathesis, or lithæmia, is a condition frequently observed. In fact it is of such common occurrence, that it is more often overlooked than otherwise in treating many obstinate cases of dyspepsia, headache and allied disorders. The principal reason for this failure to recognize its presence is a misconception of its causes and results. It is by no means dependent upon high living for its causation and it does not necessarily give rise to the ordinary symptoms of gout or rheumatism.

Haig (1) has proved both of these facts by a long series of carefully conducted experiments. He regards migraine, gout and some forms of rheumatism, with their intermediate conditions, as manifestations of the presence in the blood and tissues of this active poison, which is the generally accepted theory. Its retention is due to decreased alkalinity, of the blood, which may be brought about by other means than high living, notably, by acid indigestion, by inactivity of the skin, by continued exposure to a cold, damp atmosphere, or by excessive use of coffee or tea. The most important results of its retention are deposition of salts in the joints and other tissues, and continuous, high arterial pressure as long as it is in the blood.

However, it is not in the scope of this paper to discuss the interesting process of uric acid retention or its relations to the various phenomena of gout and reumatism. We shall content ourselves with regarding these well known symptoms as corroborative evidence in diagnosing lithæmic eye disease.

Many of the cases that come under our observation have originated in an attack of acute rheumatism, a few come from among those who suffer occasionally from the true gout, but most of the ocular disorders of this nature are found in those who are afflicted with so-called "chrónic rheumatism," "rheumatic gout," or only a "gouty" or "rheumatic" tendency. Sometimes there is a suspicion of specific trouble, more or less remote, and often it is hard to obtain any definite history.

It is important to bear in mind the identity, or at least, the similarity of the processes at work in all these cases as well as in those of more obscure origin in making a prognosis.

All of the text books on opthalmology refer to gout and rheumatism as causative factors in disease, but pathological research has thus far been limited. Wagenmann says that gout as a cause of eye disease has received but little attention in Germany (2). English text books, owing to the prevalence of these disorders in England, usually discuss them at some length. Nettleship (3) refers to the uncertainty of differentiating gout from rheumatism in eye diseases, and mentions the frequency of "insidious forms of iritis" where the family history is the only evidence of the rheumatic or gouty origin. He also speaks of the general belief that the gouty, or those who inherit a gouty tendency are more liable than others to suffer from glaucoma.

Some very valuable information on the immediate subject of this discussion may be found in the report of investigations by C. S. Bull, (4). In his ten cases there were perceptible lesions of the vessels, and three autopsies revealed the presence of general sclerosis of the retinal and choroidal vessels.

Haig dwells on the uniform increase of blood pressure induced by uric acid. Bull, (4) says: "The influence of gout in the development of arteriosclerosis and endarteritis is now well established. Arterial degeneration is hereditary in certain families, and signs of arteriosclerosis are very often the first symptoms of the hereditary malady." He also call attention to the frequency with which these complications are found in atypical gout. There are, then, three distinct influences in the production of disease in the sensitive and vascular tunics of the eye, viz.:

1st. The presence in the circulation and fluids of the *materies morbi*.

2d. The temporary increase of blood pressure.

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*Read before the North Carolina Medical Society, May, 1898.

3d. The high arterial pressure and sluggish venous circulation resulting from diseased vessels later on.

It can readily be seen how either of these factors, or, as is often the case, two of them acting together, may give rise to inflammatory and degenerative changes in the eye, especially when there is an inherited weakness in that direction.

Thus, the presence of the uric acid, with its correspondingly high arterial pressure, is accountable for a large class of cases, including what Wagenmann (5) calls, "seroplastic inflammation, with or without perceptible excretion of uric acid,"—"with a deposit between choroid and retina."

This is common at all ages and may assume a variety of forms, usually, however, it begins as a recurrent, serous or plastic iritis, or a mild and painless irido-cyclitis of serous type, which is only noticed at first on account of suddenly failing sight. Upon examination in the early stages, the iris will be found slightly discolored, the pupil fixed, the aqueous homor a little turbid. There will be a few fine opacities in the anterior portion of the vitreous, and often a triangular patch of punctate opacities on the posterior surface of the cornea.

Many cases recover without more serious complications; some cases of cyclitis eventually result in glaucoma, while a number of cases originating in either iritis or cyclitis, finally merge into chronic choroiditis. The opacities in the vitreous become more noticable, the tension of the ball is reduced, there are sensations of light and deep-seated pain, after which recovery with useful vision is only a possibility. The usual course is a continuation of remissions and exacerbations through months or years, finally resulting in recovery with disseminated patches of choroidal atrophy and very little or no vision, or in suppuration with its disastrous consequences.

Though the influence of uric acid retention in causing these troubles may be undoubted on account of the existence of other symptoms of its presence, the pathological processes taking place in their early stages are very obscure, and there are no characteristics, anotomical or clinical, to distinguish them from the cyclitis and choroiditis of different origin.

A second class of cases presents symptoms of a different nature and of less severity. The origin of this form of disease, which may be called central chorio-retinitis, is sclerosis of the retinal or choroidal vessels in the macular region, as in the cases recorded by Bull.

According to this author, the retinal disease first shows itself in the formative period of the arteriosclerosis. The endarteritis usually attacks the intima first, causing a new growth of connective tissue or a constriction of the calibre of the vessel; the muscular coat being next involved, loses its elasticity and becomes irregularly dilated, giving rise to hæmorrhages into the retina. The same process taking place in the veins, give rise to œdema. The varicose dilatations, the hæmorrhages, which may vary in extent, the œdema and more or less deep vitreous haze, can all be readily detected with the opthalmoscope in the early stages. After a while the characteristic patches of yellowish exudation make their appearances around the macular region, somewhat resembling the picture seen in albuminuric retinitis. Wagenmann calls this an "inorganic deposit," but the appearance is probably due to the large granular cells found by Bull in the nerve fibre layer, similar, from his description, to those observed by Anmann (6) in retinitis circinata, to which he ascribes the white patches of that disease. The last opthalmoscopic picture is that of central choroidal atrophy and the final result is often cataract or vitreous degeneration.

The symptoms are gradually or suddenly increasing dimness of vision attended with more or less photophobia and periods of severe pain. The patient complains of sensitive eyes which seem to be constantly on the verge of an acute attack. In the course of several years, central vision is almost or completely lost, though in the periphery of the field it is always comparatively good, and total blindness never comes from this cause alone.

The third and last variety of uveal disease which may cause serious trouble is not attended by any recognizable symptoms of inflammation. For this reason it is often completely ignored in accounting for the development of cataract, glaucoma and the inverse astigmatism so commonly seen a few years after the advent of presbyopia.

It is probably a mild angiosclerosis, more pronounced in the ciliary region than in the choroid proper. The signs of inflammation are wanting because here there are no terminal vessels without anastomosis as there are in the macular region, and consequently, no hæmorrhages and exudations from obstruction.

Schoen, of Leipsic, (7) describes the condition as a chorio-retinitis of the ciliary region, and lays great stress on the agency of uncorrected refractive errors in its etiology. He states that the results are inverse astigmatism and equatorial cataract. What part angiosclerosis actually plays in its causation can only be surmised from the known facts. It is frequently seen in connection with gouty and rheumatic symptoms; it develops at a time of life when sclerosis from uric acid is common, and angiosclerosis is known to produce elsewhere results similar to the process he describes.

The astigmatism is produced by displacement of the ciliary body, slackening of the zonular fibres and the consequent tilting of the lens. In these cases the opthalmometer invariably shows less astigmatism than is found by other methods of examination, proving that it is due to a change in the shape or position of the lens, and that it is not to be confounded with ordinary astigmatism that may become manifest at this age.

But the chief interest that attaches itself to these obscure and mild troubles is due to the frequency with which they are followed or attended by glaucoma and cataract. Unfortunately, it is in the insidious cases that these deplorable results are common and their causes are often to be sought in the sclerosis which affects the sensitive vessels of the uveal tract at the same time, if not before, it attacks the whole circulatory system.

Ritchie, of Washington, (8) holds that, "every form of glaucoma is owing primarily to gout (or goutiness) or to acquired syphilis." It would be out of place here to attempt discussion of the causation of glaucoma, but, it must be said, in justice to this theory, that it is quite as plausible and as probable as any of the others. The increased extra-ocular tension, the sluggish circulation and vascular degeneration of the choroid, inclosed in the unyielding sclerotic, and the *materies peccans* in its fluids, certainly favor increase of intraocular tension. When once this has been brought about, the future progress of glaucoma is automatic.

Indirectly the same processes are instrumental in the production of cataract, as may be seen from the following facts: 1st. It is necessary in many or all instances to assume some cause for cataract other than mere old age. 2d. Arteriosclerosis is common at the cataractous age, and is known to precede it in many cases of central chorio-retinitis. 3d. Any vascular degeneration of the choroid must necessarily interfere with the nutrition of the lens.

The following conclusions are drawn from this brief study of the subject:

1st. The uric acid diathesis frequently manifests itself in disease of the sensitive and vascular tunics of the eye.

2d It often does so when no other symptoms of its presence have been detected.

3d. Three agencies are at work in the production of the trouble; the *materies morbi*, the increased blood pressure and the final angiosclerosis.

4th. The cases originating in the iris and ciliary region are apt to merge into disseminated choroiditis and to terminate in blindness.

5th. The disease originating in the macular region of the choroid or retina finally destroys central vision and is often followed by cataract or vitreous degeneration.

6th. The influence of lithæmia is often exerted without producing easily recognizable lesions, in which case its results may be inverse astigmatism, glaucoma or cataract.

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The Under Side of Things in a Doctor's Life.*

By Hubert A. Royster, A. B., M. D.,
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Inasmuch as the essayist of the North Carolina Medical Society is privileged to address a general audience, it seems fitting to select a subject which closely concerns both the profession and the laity. One of my friends is fond of saying that nothing is interesting unless it be of human interest. The brief remarks which I shall make this evening will have much to do with folks and human nature. The intention will be to speak simply some thoughts which constantly push themselves forward in the mind of one busied with daily trials in the practice of medicine, especially as these thoughts bear on the personal relations of doctor and patient. My years are few and my experience is small, and it is, therefore, not to be expected that this paper will contain long, philosophical deductions founded on a broad, matured view of life and its struggles. Enough has come, however, to convince me that too little is known by the physician and his patient of their own bearings toward each other. We seldom stop to think how each appears in the smaller affairs of our existence.

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Why do folks employ physicians? Most people send for a doctor because they are sick or think they are sick. That seems reasonable enough. There are some who must have a doctor because it is "the thing" to do, even when they believe a physician's services are not needed. Others for various reasons or excuses refrain from sending at the proper time, when they know they should do so. A curious phase of this question is presented by the man who refuses or avoids medical counsel because he is afraid the doctor will put him to bed, cut down his diet or tell him to stop his work and rest. Now the man himself realizes at once that he ought to do these things; if not, why should he suppose that the doctor would so advise him? The physician has no desire to control a man's habits, to regulate narrowly his life and to place restrictions upon him. He would gladly cure his patient without these. If it is the doctor's opinion that the sick man should lie in bed or be put on a liquid diet, this seems to be the only course to pursue. It is the only one pursued by those who have made up their minds from first to last to do right regardless of their own feelings. How difficult it for us all to sacrifice our personal desires for what our consciences tell us is the absolute right. A little boy once said this was a hard, cruel world, because everything he wanted to do was wrong, and everything good to eat was unhealthy. Are we not all children of a larger growth? But these people of whom we have been speaking are those who cry with much vehemence, "Oh yes, always do what your doctor tells you; what's the use of having a doctor and paying him, if you don't follow his directions?" The only use in their cases seems to be to do just what they please—to carry out just as much of a physician's orders as will not conflict with their own likes or dislikes.

By large classes of people, doctors are looked upon as chronic objectors, who go about seeking to find something which they can order somebody to stop. Let me say emphatically that the doctor is not an autocrat, a tyrant, an ogre—not even an exhorter or a pleader, but a medical adviser in the passive voice. There should be no getting down on the knees and begging the patient to do his bidding. The man is a free will agent; he consults the doctor; a certain line of treatment is advised; the man is at liberty to carry it out or not as he chooses. The responsibility of the medical man ends with the advice given. Many imagine that it is to please the physician that they obey his orders and that they confer a favor on him every time they take a dose of medicine. It is hard to make them see that the treatment is intended to do good to them, not to the doctor. Like schoolchildren, who are constantly endeavoring to shirk any duty, they fail to see that they are cheating themselves, not the teacher. Another still stranger feature is seen in those who send for a doctor in whom they have confidence, buy the medicine he prescribes, and that's the last of it. The ways of such people are like the ways of Providence—past finding out.

It is the physician's duty to answer all calls as promptly as possible. Complaints are continually being hurled at our heads for not getting to the patient as soon as the patient himself or the friends think we ought. There are several things to say about this. Emergency calls usually, I may say always, receive immediate attention. In the ordinary rounds of practice it is impossible to see every one first; the doctor cannot be in several places at the same time. He must use his own judgment as to the order in which he visits the sick. Frequently several persons will send all but simultaneously, each one asking the doctor to stop by his house the first thing as he starts out. Time after time messages will be sent telling the doctor to come "at once," when upon questioning at the time or upon arriving at the house later it is found that no immediate attention was needed, or was expected, by the patient. Very often the sick one will be in the kitchen, or sitting up chatting with friends, or possibly out for a little stroll. I have had occasion to observe in my own practice each of these circumstances. After such people cry "wolf" once or twice the doctor learns them and he acts accordingly. Can you blame him? With some, in my own practice, a hurry call means to hurry and I always do so. I know they need a doctor's services. Others make day and night hideous with false alarms, so that it is hard to distinguish the true ring. What most of folks, sick or well, need to learn is that there are one or two more people in the world besides themselves; for love of self more than love of money is the root of all evil.

People, universally, seem to be in the dark concerning the real relations of physicians to one another. "You doctors are so awfully formal in your ways" and "your etiquette is very peculiar" are expressions very frequently heard. Etiquette among physicians is founded upon ethics, or the a t of doing right, and defined as such, the way is perfectly plain. There will rarely be any friction between two doctors who are both gentlemen. A gentleman wants to do right. He may not always do it, but he always wants to do it. Among the members of the medical profession everywhere there are some men who are not gentlemen, even though, in many cases, their outward conduct may be apparently straightforward. They are not gentlemen at heart. And their professional brethren know it most of all.

Personally, I would rather one of my respected fellow-workers should consider me capable than that whole cities full of people should rise up and call me blessed. It is a fact, I think, that the layman is scarcely capable of judging a physician upon his merits. The majority of people employ a certain doctor because of his general reputation gained through outward impressions on themselves or on their friends and associates. They continue to employ him, granting that he has average ability, if he is personally agreeable to them, not, as a rule, on account of any particular skill he may possess. There is a very general impression among the laity that for most ailments any physician will do; that because a man is a doctor he must know and do the same that all other doctors know and do. Studying medicine of itself does not endow a man with a better or a bigger brain nor does it supply him with reasoning power not already his own. It only gives him some more facts—tools of the mind, and skill in the use of them, all in his own measure. Mental grasp, judgment, the ability to draw correct conclusions—these are all individual attributes, obtained by inheritance and developed by general education. No one could really expect a physician to reason more logically on matters in medicine than about those of every day experience. This inability of the layman to correctly criticise a doctor is the cause of the success of many men in the profession who are unworthy to be in it and who become notorious by playing to the public.

The doctor has most abundant opportunities for studying human nature—that weak thing in us all, with which we excuse a multitude of sins. Did you ever think how mean human nature really is? We express it in a measure when we attempt to forgive every thing low and vile in ourselves by saying, "Well, we can't help it; it's human nature." I believe it was Dr. Deems who said that there was "lots of human nature in folks as well as in hogs." The human nature in folks is of vital importance to the physician. He comes into closer relations with the people in a community than do either ministers or lawyers. A man whom the church and the law regard as immaculate may be known to the physician as a profligate in his inner life, and a scoundrel at heart. The doctor carries with him the secrets of life "even to the third and fourth generation." A trained eye and a careful physical examination sometimes tell the medical man all he wishes to know. This is fortunate, for there is nothing that the average person delights in more than to keep something from his doctor—a trait none but physicians (and observant ones) realize in its full import. It would be astonishing to the people in this audience if they could appreciate how often a man will sit in a doctor's office, where he has come to obtain relief, and lead the doctor off the track by telling deliberate falsehoods, and the patient would be equally astonished to learn in many cases that the doctor knows he is lying. Such things as this are of almost daily occurrence with busy and watchful physicians. Most men are naturally liars; some could not speak the truth, if they tried; very many do not even try. It has been said that if you run out on the street any where and grab the first man you meet, nine times out of ten you have a liar. But, I was saying that doctors get very close to the people. They go into the home, into the family and learn every member of it, both in sickness and in health; for they study all the others while in attendance on the sick one. The remark is so often made that the doctor sees the sick man at his worst, on his back, suffering; and that, therefore, he should excuse the man for all sorts of weaknesses and meanness, on the ground that the man is not himself. I claim that the patient, unless he be delirious or comatose, is very much more himself—with his shell off, with his society manners laid aside and his true disposition revealed. His moral nature can then be observed in its primitive state. We can find out whether he is considerate of others, whether he is courageous in the presence of pain. whether he wants to do right. True, illness of any kind is apt to make one disagreeable, but it does not add anything new—only brings out the old. The moral nature in folks is indeed an interesting and profitable study for physicians. By this I do not mean the attribute in men which makes them religious, but the innate principle, the motive for doing things, good or bad. The study of nervous degeneracy and its hereditary influences is productive of valuable results. The lack of moral sense is often mistaken for feeble intellectual development. There are occasions when a doctor finds difficulty in having his directions carried out even after he has gone to great lengths in explaining them to some member of a family. The trouble is supposed to result from a want of understanding, and at times it may; but more often it is due to the fact that the person to whom the orders are given is absolutely devoid of a sense of moral obligation and is arrayed on the opposite side always. Such a person never determined to do right about anything. Any one can comprehend a few directions simply stated, but it takes a person of strong moral nature to want to follow them implicity.

It is wonderful how people neglect to take a doctor's advice, to what ends they will go to deceive him, and then how ready they are to blame the doctor if anything goes wrong. I will acknowledge that most people do not cast the blame on their doctor unjustly. But many do and generally for the most trifling reasons and without cause. Just as a physician commonly makes his reputation by the smallest things, so in the same way he often mars or looses it. The conscientious medical man throughout all ages and countries has silently steeled himself against this and has plodded along

"Knowing if he won the battle they would
praise his Maker's name;
Knowing if he lost the battle then the doctor was to blame."

This verse would serve as the text for a more elaborate effort than I feel able to undertake, but it suffices to show one other phase in human nature. The gratitude of patients is worth much to physicians more sometimes than any price which could be paid. How many times, when a man is flat of his back, would he offer his whole fortune to get well and when on his feet give nothing to the doctor in return save, perhaps, abuse for keeping him down so long; or promise fifty dollars before an operation, and not even render thanks afterward!

"When the devil was sick, the devil a saint
would be;
When the devil got well—the devil a saint
was he."

Alas! how often it is that "gratitude is a lively expectation of more favors to come." In the experience of nearly all doctors among the most ungrateful patients are those who receive the largest amount of charity work. The man who gets the attention and pays his money for it, feels that he has received full value and is accordingly grateful. It has been said that if you wish to make an enemy of a man, do him a personal favor or lend him money.

Turning away from this baser side it is refreshing to know that there are higher and better things in a doctor's life. To feel that we have been instrumental in saving the life of even one human being, be he grateful or ungrateful, scoundrel or gentleman, is a noble and satisfying reflection. Nothing can take from us the consolation arising from a knowledge of duty well performed, suffering relieved, death averted. And yet the moral attitude of his patient must always have its influence on the physician, who is also human. A doctor would prefer a whipping to entering the doors of some homes; there are others in which the hard work he does is never irksome. The difference lies wholly in the moral sense of the people themselves. It is natural to separate the chaff from the wheat; to cast some people entirely out of our lives while we grapple others to us with hooks of steel. A great part of the doctor's success lies in his ability to understand folks—their goodness and their meanness—to weigh their moral natures in the balance of cold logic. One of the most important points in any diagnosis is to find out whether the patient is lying or not. If he is, discard the history and depend on your physical examination; if he is not, shake hands with him, but consider carefully what he says.

As this article is being rounded to a close I am reminded that it savors extremely of the pessimistic. And yet the picture is not so black but that the light may be seen shining from behind the dark background. We cannot appreciate the good without knowing the bad. Nor can we do right unless we know what wrong is. I have brought before you here glimpses of the inner life of physicians (for we all have about the same sort of experiences) and the personality of their patients. In doing this I have necessarily spoken of some evil, but with the hope that good may come. Doctors must not shut their eyes to the seamy side of nature, but must study both the good and the bad in the characters of their patients. Nor will it profit to look upon every patient as a "case," forgetting the finer, deeper elements within each individual. There is too great a tendency toward this in these latter days, and it may not be amiss to say seriously, in the language of another, that the human stomach is not a test tube, and the human body is not a laboratory.

323 West Morgan Street.

A Plea for Conservatism in the Treatment of Abortion.*

By R. L. PAYNE, M. D., Norfolk, Va.

After having been engaged in the practice of my profession for about ten years and having had under my care many troublesome and sometimes dangerous cases of abortion, I cannot tell you with what pleasure I read the announcement of one of our great teachers that under modern methods no longer must cases of abortion be allowed to drag out a weary length but resort must at once be had to the safe, easy, certain method of emptying the uterus at one sitting by means of the uterine dilator and curette. I at once adopted the new plan of treatment and now after something more than ten years I have been summing up results and asking myself is this new plan of treatment safer and better for the woman than the old. Not only have I been watching my own cases but I have been studying the work of others and after all I am forced to believe that in the majority of cases the tentative treatment is the best, for by far the largest number of cases, and while I believe there is a field for the use of the curette in abortion I believe it is strictly limited to septic cases and those in which the products of conception having escaped hemorrhage is kept up by retained placental fragments. What are the great sources of danger in cases of abortion? Unquestionably hemorrhage and septic infection. As to the first I think we are all fairly well agreed that violent alarming hæmorrhage in these cases must be controlled very largely by the vaginal tampon. As to the second source of danger let us first consider what measures nature has instituted to protect the woman from auto-infection and then we will be in position to consider in detail what treatment had best be adopted. At the risk of being a little irksome let us think for a moment of the circulation of the placenta composed as it is on the one hand of arteries carrying the maternal blood, and terminating not in capillaries but in great sinuses; and from these sinuses the blood is carried back to the mother after it has served its purpose in the nutrition of the fœtus through the maternal veins, and on the other hand of arteries passing from the fœtus terminating in villi which penetrate the uterine sinuses and, bathed in the maternal blood imbibe whatever may be necessary to the nutrition of the fœtus and throw off by exosmosis all effete matter, the blood being then returned to the fœtus by the umbilical veins. Let us note then just here that there is no direct intermingling of fœtal and maternal blood, or in other words no continuity in the vessels of womb and placenta and hence no danger of putrid matter being taken directly into the blood of the mother from a decomposing placental mass. Let us note in the next place that if the placenta be carefully separated it will be found that the fœtal and maternal portions are separated by a distinct tissue which Leishman describes as the inter-utero placental tissue, and though the curling arteries of the uterus do penetrate this inter-utero placental tissue it has never been demonstrated that the lymphatics pass through this dividing tissue line and hence it is fair to infer that the absorbent vessels of the uterus are protected to this extent at the placental site from any septic matter which may be found in the uterus. But again, no sooner does the placenta separate in whole or in part from the womb than the mouths of the torn uterine sinuses are plugged by the formation of blood clots, thus effectually closing them as avenues of infection, while last, but by no means least, the placenta is usually situated at the fundus of the uterus and thus nature has provided for drainage of septic fluids away from the placental site.

But again, let us notice that when the placenta becomes detached, in part or as a whole, there is very nearly always more or less uterine action and as a rule a portion of the placental mass hangs out of the os, so that the dilatation is maintained and the exit of fluids from the uterus facilitated, and thus the first great principle of antiseptic practice—thorough drainage—is provided, again reducing the danger of infection at the placental site.

And now it remains only to call your attention to the fact that the whole parturient canal is always coated with mucus which reduces absorption by the mucous membrane to a minimum, and to recall to our minds the recent demonstration of bacteriologists that this mucus is loaded with saprophytes exceedingly destructive to all other bacteria, and we can but wonder at the wonderful provision the great Creator has made to protect the woman from all danger of sepsis during the accidents of pregnancy. But I think I hear you say. "this is all very specious argument, but whether or not we accept the argument the fact remains that no matter what provision nature has made to prevent septic infection in cases of abortion, such accidents very frequently occur." True, but a careful study of this class of cases leads me to believe that septicæmia occurring during abortion is the result of the infection of some traumatism produced by meddlesome efforts to accomplish that which nature is as a rule able to bring to pass without either a curette or other serious intervention on our part.

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*Read before the North Carolina Medical Society, Charlotte, May 1898.

I do not believe there is any man so skilled in the sense of touch as felt through a metallic instrument as to be able to curette the womb without doing more or less violence to endometrium not involved and thus are created numerous traumatisms ready to suck up any putrid matter which passing downwards seeks exit in the vagina. But you say granted that the curette may produce such lesions as you suppose, there is still no danger of infection for by the operation we scrape away the entire placenta, mop out or wash out the uterus with suitable antiseptics and thus leaving the patient in a thoroughly aseptic condition there can be no further danger. Yes, I admit that is the ideal operation and if that could always be accomplished all would be well, but remember that this class of cases fall into the hands of all sorts of physicians, with every grade of qualification and I opine, of the most skilled, to only a very small minority is granted a sense of touch so delicate as to be able to determine absolutely by the impression made through the curette to the operators fingers or even to the finger itself that every portion of the placenta has been removed, and if only a small portion remains, and the mucous lining of the womb is wounded by the curette how much more liable will the woman be to absorb the septic matter as it passes downward to the os than she would be to absorb it at the fundus.

Finally in this connection let us note that in the efforts to scrape away the placenta the inter-placental tissue will also be scraped away, the uterine lymphatics directly exposed at the placental site and the danger of septic absorption increased manyfold. In the course of my own experience I have very rarely seen septicæmia occur in cases of abortion even under the worst conditions, where no manual efforts were made to remove the placenta except from the vagina, and I believe that in the vast majority of cases the best interests of the patient will be subserved by tentative treatment. When symptoms of threatened abortion occur the woman should, of course, be at once put to bed and the most absolute quiet of mind and body must be observed. If there is pain the Viburnum Prunifolium must be freely administered in large and frequently repeated doses. This is one of the best of all drugs to quiet uterine action but requires to be given in very large doses to produce the desired effect, and as I have written elsewhere if there be much hemorrhage it is a dangerous remedy because it is a paralyzant of unstriped muscular fibre, and therefore by lessening uterine contraction promotes hæmorrhage. If hæmorrhage is sufficient to demand attention stop the viburnum and resort to small doses of opium, ipecac and acetate of lead and if hemorrhage is very free then resort must be had to the tampon of iodoform or other sterile gauze. Before applying the first tampon I never resort to the antiseptic douche as is so constantly advised because I do not wish to wash away nature's coating of mucus or destroy her scavengers, the vaginal saprophytes, but if it is necessary to apply other tampons I always douche the vagina with warm (not hot) sterilized water to wash away any decomposing blood clot or other debris which may be lying there. It is rarely necessary to apply more than two tampons. Usually on the removal of the first tampon the products of conception are found lying in the vagina or hanging so loosely in the os that it may be gently drawn away by the finger. Just here a word of warning and that is unless the whole conception can be readily removed by the finger do not permit yourself to remove a portion as in that case the mouth of the uterus will close up imprisoning the remainder and all uterine action will cease. If, however, this is not the case and hemorrhage is still to be feared, reapply the tampon and this may be repeated again and again, but in my experience it is rarely necessary to apply a third tampon, as after the second the hemorrhage is usually so slight as to no longet be a source of alarm. So long as the abortion is not complete the woman must remain in bed and the warm, sterilized douche used twice daily to bring away any foreign matter in the vagina. The os will, as a rule, be slowly dilated and the ovum forced into the vagina. Interfere as little as possible, remembering that even the finger may introduce septic germs, or create slight traumatism of vagina or os uteri that will greedily absorb anything passing over the abraded surface. If the discharge become of very foul odor or at any moment that septic symptoms supervene then resort may at once be had to the curette and under the strictest attention to antiseptic detail the uterus cleared as thoroughly as possible of its contents. Even then let us remember that in the use of the curette we are only choosing between two evils.

In conclusion permit me to add that I do not wish to be misunderstood. I do not wish to say that the curette is never necessary in treating abortion but I do wish to say that it is only necessary in exceptional cases, and that it should never be used except by one fully aware of the fact that this little instrument is full of minor and even deadly possibilities. Today every fellow who can buy a set of uterine curettes stalks about the land armed cap-a-pie, and upon the slightest provocation attacks the womb. The doctor records an operation but the woman may record the initial date of a ruined life. If the history of the individual life of the medical men of today is ever written, blessed will he be who has no surgical sins chargeable to the use of the curette.

300 Fremason Street.

DISCUSSION.

Dr. Hines.—I don't want to say anything to-day, but in my experience of over forty years I differ entirely with Dr. Payne. In all cases of abortion without there is danger of hemorrhage, I do not think it is necessary to do curetting, but wherever there is any danger of hemorrhage I have found there has been more perfect satisfaction to use the curette. I would no more hesitate to use the curette after abortion than I would to tie the artery that ought to be tied. For thirty-five years I have used the curette a good many times, sometimes to clean out the remains of the placenta. I believe the less a man can do the better, but I have never seen a case that I did any damage, and in some cases I have stopped hemorrhage with a curette. I say of all things if you have a good deal of hemorrhage after abortion, don't pester with tampons, but trust to cleaning out the contents of the uterus thoroughly. I have never found any bad effects, and in some cases I have snatched women almost from the edge of the grave by the use of the curette, and they commenced improving immediately. Another thing. I will mention a case I saw about 1857. A woman below Raleigh had been confined. Twelve or fifteen days afterwards I was sent for to go to see her. When I got there, she lived in a small house of one room, and when I went into the room I smelt the most offensive odor, and I inquired what was the trouble, and I found that part of the placenta had been retained and it was thoroughly decomposed, and she had been confined twelve to fifteen days. That placenta had remained. I simply used my hand and cleaned out the uterus thoroughly. I didn't even wash it out, simply cleaned it out with my hand. I mention that to show the Convention what Dr. Payne says about the protection that is afforded women. I have never smelled a more offensive odor in my life than in that room, and by removing the placenta the woman got well.

Dr. Jordan.—I wish to endorse Dr. Payne's position in this matter, and give in my experience, which has not been very abundant, and say that if there is any sin charged to me for the use of curette, it will be after now. I have been practicing since 1881. I haven't had a very great number of cases of abortion, but I have never had occasion to use the curette in any case I have ever had. I have never had occasion to use a tampon in any case I have ever had, and I have never had a death from an abortion. I have never left a case of abortion until I left it completely satisfied in my own mind that there would be no more hemorrhage because I had emptied the uterus of its contents. and I have always been able to do that with the finger. I may not have had those bad cases that needed the curette and needed the tampon. Now, some three weeks ago I was sent for to see a lady that had had a miscarriage some seven weeks before, and the secundines had not been entirely removed, and while there had been no miscarriage to amount to anything, she was taken violently ill with flooding. I didn't get to see that patient because of absence from home that day, but another doctor was called on and they together curetted that womb. In less than six hours after curetting that lady had a septic chill, a temperature of 106, and a second chill came on the next day. We completely rinsed out the cavity with carbolized water and the lady recovered.

Dr. Payne.—I am a little bit surprised at the advanced position that Dr. Hines has taken. I understood him to say that he had used the curette for twenty-five years. He was very much in advance of the teachings of the age, if he has been curetting for twenty-five years. I believe Munday (?) ten or twelve years ago, first taught the importance of the use of the curette in abortion. Since that time it has been popular, and I am very glad to find we have had a doctor in North Carolina who was so very much ahead of the time. I am also surprised to hear that Dr. Hines used the tampon. The latest text book that I have seen which represents American thought, advocates the use of the curette for the prevention or relief of hemorrhage. I don't want to be put in the position of denying the importance of the use of the curette in cases of aseptic abortion, or in relieving the hæmorrhage when that hæmorrhage is due to retained membranes but I do claim that the majority of cases of abortion do not readily become aseptic. I do not believe there is any man so possessed with the delicate sense of touch and so skilled with the use of the curette as to be able to do always what he intends to do. If he were, then I would grant the propriety of using the curette or tampon. But I have seen a skilled operator scrape through the uterus entirely, I have seen the accident occur in less skilled hands, and I have seen another skilled operator curette the uterus preparatory to hysterectomy and the next day find a cut the size of my thumb in the uterus, and those things prove to me that even skilled men will leave stuff there that they didn't intend to leave, and even skilled men may do damage that they little think they have produced. And again I want to speak against the use of the curette in the unskilled hand, and I would so speak that in my large experience I have seen many cases without the curette, by nature's efforts, get well without any trouble at all. The thing we want to guard against is not treatment, but against too much treatment.

Dr. Hines.—Dr. Payne misunderstood one thing. I didn't say for twenty-five years, I said during twenty-five years, during that time I have frequently used the curette, and I have never used anything that gave any better satisfaction in any operation that I have performed in over forty years in surgery and more success than in the use of the curette for uterine hæmorrhage. I don't believe in using it for all occasions, and said simply that I used it where there was hæmorrhage and remains of the afterbirth in the uterus. I act and speak for myself in all my operations and don't wait for other people to tell me what to do. I have always referred to myself for what I did. In every operation I have gone through I have acted for myself without regard to what other people said. I can't say positively when I began the use of the curette, but it has been during the past twenty-five years, and it has given me unbounded satisfaction. As a rule I have used anti-septic washes.

Dr. O'Hagan.—I hate to prolong this discussion, which I think has wandered off from first principles. I look upon Dr. Payne's paper as a very timely one and very apropos in all respects. A great many years ago a very wise English obstetrician laid down the axiom that a meddlesome midwifery was bad. Long before gynecology was established as a branch of medical science there was perhaps a good deal of needless interference on the part of the obstetrician, and this gentleman raises a warning voice against it. But since the uterus and its appendages for the last thirty or forty years have been made a special object of attack by the medical profession in every possible way with sharp and blunt instruments, and when every medical tyro has made a great many sins of commissions and not as many of omission as perhaps they ought to have done, I think that this meddlesome midwifery is bad, and that nature as a rule has so arranged the reproductive organs that men can continue to increase without making reproduction such a deadly condition as modern gynecologists would make it appear. The indiscriminate use of the sharp curette I have seen time and time again do a great deal of harm, and the blunt curette is chiefly useful for emptying the uterus of its contents, after that the less you bother with that organ the better results you will have, The finger sometimes will answer the purpose, but generally for the purpose of emptying the cavity the blunt curette alone should be used. I understand Dr. Payne's paper to be a protest against meddlesome midwifery and surgery.

What Should be the Attitude of the General Practitioner Towards Serum Therapy.*

By Chas. L. Minor, Asheville, N. C.

The attitude of our profession today towards the Serum Therapy of infectious diseases is so varied, we find so many ardently championing some special serum, so many as violently opposed to all, and so many more yet uncertain what is the wisest attitude to occupy, that a few remarks on the subject of our position towards this new branch of therapeutics may not be untimely, more especially if, as I hope, it calls forth active discussion.

I do not intend to-day to quote personal experiences, but rather to discuss abstractly what should be the professional attitude on the subject. There are many candidates for our favor and patronage, each urged with insistence by its especial advocate, for in this line at least, gentlemen, the manufacturer cannot leave the doctor out of consideration, as is his wont, nor go, as so many gladly would, directly to the patient. All of them, various as they are, can be classsed either as toxins or antitoxins, and while the first steps towards their use date back to the work of Pasteur on chicken cholera, in 1880, it is only since the success of Behring that we have been overwhelmed with examples of this class of remedies, and today the yellow journals of the medical press not infrequently startle us with the report of thediscovery of some new panacea of this nature, mostly, let us be thankful, fore-doomed to the fate of all premature births. Indeed, it is because the number of candidates for our favor has grown so large that I have thought it worth while to speak on this subject today, for who but is bewildered when trying to make choice between so many loud-voiced claimants, whose specious arguments, clothed in semi-scientific language, would often almost convince us, despite our better judgment, that in them alone can lie the salvation of our patient. That patient, gentlemen, has intrusted his life to our care, believing that we, neither held back from acknowledging good, however new, by an undue conservatism, nor rushing with unbalanced radicalism to adopt anything which makes promises of success however ill-founded, will find no effort too great, and no study too tedious, which would bring him relief. Therefore, it seems to me we doctors have a great responsibility upon us in this matter, and cannot ignore on account of its novelty, any honestly offered and scientifically grounded means of help.

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* Read before the North Carolina Medical Society, Charlotte, May 1898.

In considering the value to our patients of any such product, we have unfortunately to consider not only the scientific or quasi-scientific basis upon which it rests, but equally the source from which it comes. Were all men equally honest and equally embued with a pure desire to benefit their kind, even while filling their own pockets, we might safely confine ourselves to a consideration of the scientific side alone, but when you consider how lamentably commercialism has invaded even our laboratories, those homes, we would fain believe, of pure science; how each manufacturer thinks to increase the sale of his own wares by damaging the reputation of those of his competitor, how charges are brought of flagrant dishonesty in the production of fluids, for which large sums are charged and large claims made, we find it essential to look deeper than the circulars and literature with which we are deluged before using on our patients liquids as to whose purity and flawlessness we are so often forced to take the word of an unknown manufacturer. When we consider how, unless we know the author personally, we are often obliged to take "cum grano" the statements of so many articles in our medical press because sad experience has taught us that self-interest or enthusiasm can blind even honest men and cause them to make statements which cannot bear the test of disinterested investigation, we can see how much more careful we need to be before accepting as proven the claims of those who have not only an intellectual but a pecuniary interest in spreading the use of their preparations.

In some degree, of course, we are obliged to trust to the bona fides of the producer, a universal distrust of our fellow men would put a stop to the commonest transactions of daily life and be as foolish as it would be unhappy, but a wise caution and a prudent conservatism would teach us to be none too hasty in giving our adhesion to this or that product because of apparent good results reported by the maker.

The logical fallacy of *post hoc propter hoc* into which our profession is so prone to fall in its use of remedies is too apt to cause us after a short use of some promising preparation, to proclaim with undue haste, its surpassing virtues, when a careful study of surrounding conditions would show a sufficient cause for the improvement noted.

This is more especially true of those of us who, living under the unusually favorable climatic conditions of Asheville, are called on to treat many cases of Pulmonary Tuberculosis. Most incipient cases in such a climate make remarkable advances in a relatively short time, and it takes a keenly analytical mind and an unbiased judgment to disentangle those results due to favorable surroundings from those which are the consequence of the medicine used. Moreover, there is no disease in which experience more plainly teaches the temporary but extraordinary influence of Suggestive Therapeutics than Consumption, and all who have been called on to handle such will confess that any and every remedy begun in faith will for a time work marked subjective improvement, and it is subjective improvement which, less truly valuable than objective, but more showy, wins for us from our patients the most praise.

But there is another element which can well deceive us and against which we must be on our guard; I refer to the unconscious effort we all make to seek favorable symptoms, no less for our own encouragement than for that of our patients, so that we are in danger of seeing an improvement when none really exists and of hoping for a cure when our better judgments tell us it is impossible.

The enthusiasm of the patient over the new treatment from which he hopes so much puts him in an excellent position to magnify each slight advance, and comforting as it is to a doctor to be met, not by depressed and depressing accounts of painful symptoms, but by news of daily advances, we need to be carefully on our guard less we be deceived by it, and are tempted to hope unduly and promise more than we can fulfill.

The doctor's own enthusiasm and not the patient's alone needs to be looked to, for I need hardly remind you that into this very trap of his own contriving have fallen not a few of the world's greatest doctors; even the great Koch not having been proof against it and we now know that his desire to see improvement in his cases and his enthusiasm over the great idea he was developing blinded him to much that the cooler and unclouded vision of outsiders detected.

A further item of serious consideration and one which our patients most often enquire about, is the possible danger involved in the use of these various preparations. All such serums, whatever the form in which they appear, can on close analysis of their action, be classed under two heads, Toxins and Anti-Toxins, the former aiming to introduce into the system, not necessarily always in the same form, the toxins of the germ which is causative of the disease in minute and steadily increasing doses in order to cause the formation in the blood by an unknown action of the poison in the system, of Nature's remedies the anti-toxins which shall confer immunity from the disease or arrest it while in progress. Under this class comes first and foremost, Koch's Tuberculin, which, as you all know, is a filtered glycerine extract of pure cultures of the bacillus, and rich in their poisons. Further, Antiphthisin and Tuberculocidin Klebs, Koch's more recent tuberculin R, containing certain parts of an extract of the ground bodies of the germ, Kleb's plasmine, a very recent product, and Hirschfelder's Oxytuberculin, as well as a few others used in other diseases, though on the whole the toxins have found more use in tuberculosis and in the production in animals of antitoxic serum than in the acute infectious diseases.

The second class, or anti-toxins, produced in the bodies of suitable animals by the introduction of the toxins into their blood and collected from that blood after complete immunity has been produced, aim to introduce into the circulation the antitoxin ready made instead like the last of stimulation its auto-production.

At the head of this class and in results far surpassing any other stands Behring's Diphtheretic anti-toxic serum, so well known to all of us to-day, and which I feel safe in saying needs at this date no defender before any advanced body of practitioners. Its victories over disease and death are too numerous, its vindication before the medical world too recent, to demand from me here any arguments in its favor. In the same category, yet not occupying as yet, the same assured position, are Mariglianos anti-tubercle serum, Paquin's similar articles, both produced in horses or asses by the use of the tuberculin of Koch, Fisches anti-phthisic serum T R, which only differs from these last in being produced by the use of Koch's tuberculin R, de Schweinitz's serum produced under the supervision of the government in the Bureau of Animal Industries in Washington, Marmorek's antostreptococcic serum, Hafkin's plague serum, Behring's and Tizzoni's tetanus anti-toxins, and not a few others less well known.

Much variation of opinion exists in the profession as to the relative dangers of toxins and anti-toxins, but I think I can without fear of contradiction assert that the use of the former whatever their therapeutic value is combined with the greater risk.

The injection into the human body of substances so active can never be entirely shorn of danger, and while I would go on record as advocating their judicious use in careful hands and in properly indicated cases I would not fail to dwell with emphasis on the dangers which are possible from their incautious exhibition.

The anti-toxins, despite all that has been said by many zealous opponents of their death-dealing properties, and of Behring's serum more especially, can I believe, be regarded as perfectly safe, though the not infrequent erythemas and urticarias and occasonal febrile reactions, which cannot, with even the utmost aseptic precautions, be avoided, will sometime alarm those not familiar with their use. These manifestations, however, cannot be regarded as more than uncomfortable for the patient or demanding anything but a temporary disuse of the serum and if the patients are warned beforehand of the possible occurrence of such symptoms they will not alarm even the most timid. It is worth while to recall here the violent attacks of the Berlin pathologist Langerhans on Behring's Serum when after its injection his child promptly died, and yet indisputable as his case seemed an autopsy demonstrated that not the serum but a choking to death in its own vomit through fright at the hypodermic puncture was responsible for his bereavement.

Granted then that the use of these preparations is without great danger or even danger commensurate with the advantages they offer; how soon must we employ them if we are to expect satisfactory results?

Here again we have to distinguish between their use in acute as distinguished from chronic infectious diseases. The former includes to-day for all practical purposes of orotherapy diphtheria, streptococcal diseases, and occasionally tetanus, though doubtless it will not be long if the rapid advance of bateriology continues, before typhoid and cholera can be added to the list. In all these cases if we are to expect success, we must make the earliest possible use of the remedies. The experience with diphtheria has taught the great dangers of delay and no one who has his patient's interests at heart but will urge an early resort to them in this disease at least. No sooner is the diagnosis made, I almost said strongly suspected, than it becomes our duty to use it at once, not wasting invaluable time but boldly availing ourselves of the help it offers.

Indeed enough clinical evidence is now at hand to justify me in recommending its use in immunizing doses in all children likely to be exposed to the contagion, the most recent researches in Berlin having shown that a repetition of the injection every twenty-one days during an epidemic keeps the child constantly safe from infection.

With streppococcal serum the evidences are far from being equally favorable and many good men have gone on record as opposed to its use, yet even here, granted as on all essential prerequisite that the causative agency of the streptococcus has been proven beyond doubt, we have enough evidence to encourage us in its use in puerperal septicæmia of streptococcal origin and other similar streptococcal infections. Personally I have found it of great value in controlling in favorable cases the mixed infections so often present and so troublesome in the third stage of phthisis. Here it has been of undoubted efficiency in reducing temperature, decreasing the streptococci in the sputum, and even in removing all signs of their presence, and I would urge a fair trial of it in these cases. As to the other and less commonly needed and used serums for acute infections, they have not, with the possible exception of Behring's tetanus anti-toxin, which in this dreadful malady can apparently do no harm and may do much good, reached that stage when their use in general practice would seem to be fully indicated.

Of chronic infectious diseases, susceptible to serum therapy, we are to-day practically limited to tuberculosis, though here again we may expect some day to see actinomycosis and lepra included, and the painful prevalence of the great white plague, as tuberculosis has so often been called, accounts for the large number of serums which have been offered for its cure since the epoch making, though unsuccessful attempt of Koch, and my remarks shall be confined, in view of their number, to a general estimate of their position as a whole, rather than to a criticism of any individual preparation. It must be remembered that despite the many brilliant efforts to find a remedy of this nature for consumption the investigator works on an entirely different and less promising basis here than he does when studying out an antitoxin for an acute disease. In these latter maladies the strong and even virulent action of the germ creates in the body an actively hostile tendency, and even the milk of a female patient is found to contain the antitoxin, which can in some degree confer immunity on a child sucking it. The reaction against the poison is violent and strong, and offers, combined with the assistance given by our serum, rich in antitoxic power, great hopes of a final victory; in tuberculosis, however, the conditions are far different, the invasion is slow and insidious, the body apparently does not develop an immunity and we all know that a patient cured of the disease far from being immuned from future attacks, as is the case in acute infections, is even more prone than another man to reinfection; the milk of tubercular patients has no immunizing power, and aside from its poor nutritive value frequently contains the germ of the disease. The fever may indeed as is now so often claimed, be an effort on the part of nature to destroy the poison, but all who have followed it know that if so the attempt is a miserable failure. This being the situation, we cannot justifiably expect from toxins or antitoxins in this disease, the brilliant results which have been obtained in other cases, nor hold out to our patients such hopes as we might, for example, in diphtheria. Have we, however, reason enough to promise, if not help, at least no harm, and is there enough possibility of help to encourage us in a faithful and persistent use of the remedy?

Remembering the bright promise of 1890 so soon followed by sad failure; remembering the warnings of Virchow, and the more recent adverse experience of German investigators, the profession has ever before it an excellent deterrent from too hasty action and rash generalization, and is in little danger of being too quick in the matter; indeed, needs possibly some encouragement to a further trial, not of rejected serums, but of the new ones built on the experience gained from past failures.

But, first and foremost, let me protest against the useless waste of money and far worse the cruel waste of hopes which necessarily must occur where we resort to these substances in the advanced stages of phthisis. Cavitation save where very slight, hectic fever, dyspnœa while at rest, advanced symptoms of any sort should all be regarded as absolute contra-indications for their use, and if anything be used let it be Marmonk's anti-streptococcic serum, as directed against the rarely absent and most serious mixed infection which we find in all these cases and which becomes in the end of phthisis so much more dangerous than the tubercular infection alone.

If we would obtain any real results, if we wish to be able to judge intelligently of effects let us avoid the use of serums save in early, yes *very* early cases.

Slight apical consolidations, with limited extension and no great signs of activity in patients of such constitution as to satisfy us there is no likelihood of the troubles becoming acute; it is in these cases that we can expect results, and I have seen such stopped short and no further advances of the trouble in two years of observation after a course of serum therapy. But you will truly say that it is just such cases which yield good results from almost any method.

This, I admit, and as an ardent and convinced advocate of the paramount value of hygienic and climatic therapeutics in phthisis, ahead of any and all other methods, I would be loth to resort to serum until I had given the other, and to my mind, better treatment a fair trial. If we proceed in this way there will be but a minority of our cases when we feel called on to use these preparations.

But, gentlemen, we all know that however minutely and faithfully we carry out a hygienic cure there are cases which, advancing at first rapidly towards improvement and clearing up to a certain extent, reach finally a point where possibly, from some vice of constitution, further advance seems impossible do what we may. There is not much trouble left, but after several months we find no material lessening of the area of involvement.

These, to my mind, are the cases "par excellence" where I would use serum therapy, and it is in these that I have gotten the best results from its use.

When there is, on the other hand, a fairly extensive involvement of lung with no great breaking down of tissue, but with suspicious constitutional symptoms of weakness, fever and a tendency towards extension as shown by a month's close observation, and where we fear the development of acute conditions avoid the toxins, but use, if you will or must, the antitoxins, for these are the cases in which Virchow demonstrated so often the dissemination after the use of tuberculin. Again, in old chronic cavities with fibroid tendency and sluggish course, I personally consider it foolish to resort to any other means than hygiene and prudence. In all cases of acute tuberculosis I would fear the remedy and have but little faith in its efficacy.

Above all, I would say use a serum in *no* case till after at least one month of observation, for when first seen which of us is so acute as to be able certainly to say that the slight apical consolidation with slight softening may not be but the first stage of a galloping case. I recall now a sad case in a young and promising physician whose physical signs were so slight that aside from a prostration and exhaustion out of all proportion to the lung tissue involved, and a suspicious greyness of the face, there was no reason to fear a bad result, yet in whom, nevertheless, one month later a large part of both lungs was involved in a destructive process and whose death followed in less than a year.

In short, as far as the orrotherapy of tuberculosis is concerned, while urging for it a fair trial, and feeling sure that it will often prove an invaluable aid, I would say that no remedy is so ill fitted for routine use and none demands a more careful selection of your cases, nor a greater judgment on the part of the doctor in the true estimation of the results obtained.

And here let me warn against an undue anxiety over certain effects which will occasionally result from the entry of the needle into a vein during injection. Even the most careful technique cannot always avoid the occurrence, and if one is unfamiliar with the sudden and alarming symptoms it produces, one is apt to be unduly concerned.

The fact of the veins having been entered is generally evidenced by a slight flow of venous blood on the withdrawal of the needle—and when this occurs it is the part of wisdom to warn the patient at once, for the symptoms do not tarry long in their coming, of the harmlessness of the unpleasant feelings he will have, an intense congestion followed by cyanosis of the face, an anxious expression, and air hunger, a labored respiration and profuse perspiration combine to make a picture of the most alarming sort, but in my experience, and others give like testimony, totally devoid of real danger, and due to a too sudden introduction into the circulation by these active bodies; beyond an hour or two of faintness, easily relieved by diffusible stimulants, I know of no ill effects which follows this occurrence which from the literature of the subject is not rare, even with great care. Unless, however, prepared for such a possibility by the doctor, the mental effect on the patient may be bad, but forewarned, they are forearmed.

It is wise in choosing the point of injection to prick the area least rich in blood-vessels, but even under the shoulder-blade it will not, I imagine, be possible always to avoid it.

And now in closing, gentlemen, let me apologize, not only for the incompleteness of the paper, which, if it but excites discussion will yet have served its purpose, but, also, in that I have allowed myself to be drawn so much to the serum therapy of tuberculosis; but I trust that the fearful prevalence of this disease, its frequent occurrence in every practice and the general desire of all of us to find means for combatting it will serve as my excuse.

It is not easy for us medical men to steer an even course, avoiding, on the one side, the scylla of a radicalism, which would thoughtlessly seize on each new candidate for therapeutic laurels, and on the other, the charybdis of ultra conservatism which refuses to see good in anything which is new. The golden mean is, or should be, our aim, that happy balance between the two extremes, where lies the truth.

It is the chiefest beauty of our noble profession that its ever seeks that truth, and though pessimists and detractors can show many a sad departure from that high aim; of the great body of the profession it is still true that above its own pecuniary gain; above the plaudits of the world; often indeed despite its hisses, it holds and works for the good of humanity and for the truth. Following these two guides it cannot go far astray, and whatever the hasty verdict of to-day, we may be sure that the future, at least, will do us justice.

65 French Broad Ave.

DISCUSSION.

Dr. Burroughs.—I wish to say that I have listened to Dr. Minor's paper with a great deal of pleasure and profit. I think it is the best paper I have ever heard on serum therapy. It is a fair presentation of the subject from a practical standpoint of the present day. I believe that in all acute infectious diseases there is a field for serum therapy, but in tuberculosis it is different, and I don't believe there will ever be a serum perfected that will be of any value in the treatment of that dreaded disease. When Koch came out in 1890 with his tuberculin, the medical world rushed to him to get every idea in connection with the administration and management of the same. He made it a study since 1882, and last year sometime he gave for consumption Koch's tuberculin, T. R. There were a few men who experimented with it very thoroughly, two in particular being Dr. Mott, of Colorado Springs, and Dr. Dennison, of Denver. I read Dr. Dennison's paper very carefully in the Journal of the American Medical Association, or the Record, but knowing Dr. Dennison I wrote him a letter about it, and he told me that in the short time of two months that his ideas in regard to the treatment of tuberculosis were transposed, had entirely changed, and he regarded it as absolutely worthless and dangerous, and he believed it would be equally as dangerous as the first tuberculin, and, to use an old expression, he said it was like going round with a light in a kerosene vault, and he advised me not to try it. I want to say now that I shall never use any of these serum therapies in the treatment of tuberculosis, for I went off in the craze of 1890 and 1892, and I killed some patients, and I shall never use any of these serums for the treatment of tuberculosis until they have been tried and tested thoroughly and pronounced safe by the profession. I have had patients pass out from my hands that had been sent to me for attention. They would come there with little bottles of serum, and I refused to give it to them. Because of my refusal to give it to them, they have passed away from me, and passed over to their long rest.

Dr. Levi, of Richmond.—I have listened with the greatest pleasure to Dr. Minor's most able paper and can only second what Dr. Burrough's has said, that it is one of the most able presentations of the subject which it has ever been my privilege to listen to, and I am glad it was so because the discussions are limited to five minutes. Being my first visit to this State, and having been here only twenty-four hours, I can only say that it has never been my lot to be more cordially received since I came and found that I could get free soda water at the drug stores up to the present time when the courtesy of speaking on this floor has been extended to me. The question of serum therapy is an immense one, and the outlines taken by Dr. Minor have followed my own ideas so closely there is very little for me to add. The Doctor very rightly says that no one need argue before such a body as this the advantages of the serum treatment for diphtheria. That is generally admitted. There are a few points though, which in my experience are not thoroughly appreciated by the general practitioner. First of these is what Dr. Minor insists upon, early administration, not waiting until you can make an absolutely positive diagnosis, but giving it at the earliest possible moment if the case is even suspicious. Of course, I believe a positive diagnosis should be made for many reasons. Another thing, I believe the practitioner still gives insufficient doses of diphtheria antitoxin, and the lines laid down in this direction by the American Pediatric Society last year are those which I think should be followed. Another point in this matter is very important. The title of Dr. Minor's paper—"What Should be the Attitude of the General Practitioner today toward Serum Therapy?"—I think should be emphasized. All of our early data regarding diphtheria antitoxins were obtained from hospital reports, and if there is any disease in the world which a private practitioner should be able to treat better than at the hospital at this time, it certainly is diphtheria. Early treatment being a sine qua non, the private practitioner has adventages superior to his hospital brother in the use of diphtheria antitoxins, and from private practitioners we must ultimately get our ideas for the real worth of this remedy. As regards the use of tetanus antitoxin we find that we have very little indeed to expect from it. The reason is very simple. The difference between diphtheria and tetanus is very marked. In tetanus we don't know that the patient has tetanus until the symptoms of it are well developed. In diphtheria on the other hand our attention is called to the disease by the local phenomena, and we are able in various cases to treat our patients before the toxins appear. Antitoxin, of course, being an antidote, whether chemical or physical is a question, anyway there is an antidote, and if we are able to head off the effect of that toxin we are able to accomplish good. I was delighted to hear Dr. Minor and Dr. Burroughs speak so conservatively, even more than conservatively, about the use of these sera in tuberculosis. I agree with Dr. Burroughs that the conditions we have here of that disease are so utterly different from what they are in diphtheria and other diseases where we have known serum to be a benefit, that we can never hope for any good from these sera until some different principle of their manufacture may develop. At present there is nothing in the world to be expected from them. There is no doubt but that the future holds a great deal for us in this respect, and the question may arise, "Why have we no sera in the present day to treat all acute infectious diseases?" The reply is twofold. In the first place we cannot make sera until we know the germ of the disease and are able to cultivate it outside of the human body. For that reason we have no serum for scarlet fever, chicken pox, measles, or any disease where the germ is not recognized. Then in typhoid fever where we know the germ and are able to cultivate it outside of the human body, we have no serum for the reason that we have no animal that is useful for this. No animal that we know of is subject to typhoid fever by the injection of the toxins of these diseases. That applies most especially to typhoid fever and cholera. It is not at all improbable that in the future we may find some way of manufacturing antitoxins without the interference of an animal, and when that is the case we will doubtless have remedies for such diseases as typhoid fever and cholera.

Dr. Reynolds.—I have listened to Dr. Minor's paper with interest. It was a nice, neatly written paper, and serves a great deal of criticism. The treatment of tuberculosis, I think the doctor handled very carefully, that it should be used if at all in tuberculosis with greatest care. One question was brought out, and that was the question of immunization. You all know that in our blood we have leucocytes, nature's protection to the enemy bacteria, we all know that in serum we have a protection. we all know that in the anti-toxins we have a protection. Right here it seems to me that is an illustration of Jenner's vaccine virus. The leucocytes have the power of dispersion. If the enemy is too large, it will go off to the woods, they won't fight them, the bacteria being the enemy, the system being the fighters. In Jenner's lymph we let into the system little tropps at the time that nature's remedy can destroy, thereby causing the system to become accustomed to the foreigners, and then when she is attacked by the disease, for instance, variola, she is knocked kown and we have varioloid. For this reason it seems to me that this treatment of serum theraphy is good and should be discussed by nearly every member of this Society. His question in tuberculosis it seems to me was very appropriate when he said that the germ is the one to be feared in the advanced stages, that it is the germ that gives us the fever, gives us the hectic flush, the septic chill, the general running down of the constitution, and that is the man we should be after in the advanced stages.

Dr. Minor.—I have little to say in closing besides thanking you gentlemen very kindly, and to thank Dr. Levi for his excellent exposition on the subject. I will state in regard to a point Dr. Burroughs made, that I am told Tuberculin is now no longer made in Berlin. Large numbers of people went on for the investigation which was at first enthusiastic, and since that date they began to get more and more unfavorable, and to-day I am told it is no longer made, a very good evidence of what the general public thinks of it. My conservatism is not quite so great as Dr. Burroughs, and his bad results of 1890 with tuberculosis, which duplicated those of everybody, should not have so strong an effect on him as to make him close his ears forever to serum. I particularly avoided any mention of any special serum, I did not want to go on record as in favor of Smith or Jones. Personally I would state that there is a serum which a friend of mine, whose judgment I trust greatly, had used in his practice with great success. I had a case, a young girl, who on account of her absolute heedlessness, her imprudence, was unable to carry out with the least degree any of those dictates of conscientious treatment which are so necessary. She grew no better. I didn't see her again for six months. I tried to impress upon her the necessity of taking proper precautions, but did not succeed in the slightest degree. I still tried to make the girl prudent, I still tried to watch over her diet, the condition of her system, and still tried to see that she took the proper amount of exercise, but I am sorry to say that myself and her mother combined were utterly unable to make her take any precautions. Her mother wished me to try the serum on her. I told her I was willing to try it on her daughter as a last resort, now that the daughter had gone so far and knowing she was going on if let alone. With the mother's consent I used it first for two weeks. I was for two weeks without serum after the first two weeks. I was as unprejudiced as possible. The first result was a marked improvement. The appetite which had been bad, improved; the slight cough disappeared, her natural temperature returned. During the time that I was without serum, the fact remains that the decline returned. I resumed it again, and after I used 400 cubic centimeters, four bottles, I must say that at the end of that treatment there was an entire disappearance of the fever and there was in every way marked improvement, which, though I wished to be conservative, I could not be, I could not but attribute to the medicine. I saw the mother just the other day, and the mother tells me that the improvement has continued since, there has been no return of the cough, so far as the mother knows there is no return of the temperature, and she is doing well. I don't come here and say that is a great thing, but the fact remains. There was enough in it to make me think that all similar cases would, with similar precautions be the same, but I am unable to make the patient take proper precautions. It is to be placed in the line of toxins, but there is no reaction from it in my experience and the experience of my friend. The only objection I would have to it is the large bulk of the serum and the expense of the dose. Further than that I don't think there is anything I have to say to-day.

Case of Gastric Ulcer Perforating into the Pericardium.

Fenwick reports a case of such rarity that a brief abstract is proper.

The patient was a man fifty-five years old who had never complained of any symptoms of gastric disease, and who was apparently in his usual health. Immediately after finishing a meal which consisted of tea, fish and bread and butter, he rose from the table complaining of pain and palpitation, and died in about a minute.

The interesting part of the autopsy was that the pericardium was found to contain some particles of fish and several ounces of tea, which smelled of whisky. On the lower surface of the pericardium a small aperture was discovered, admitting a stout probe, which passed downward through the diaphragm into the abdominal cavity. The heart itself weighed thirteen ounces, and was extensively infiltrated with fat. The anterior surface of the stomach was found to be firmly adherent to the under surface of the diaphragm. On opening the viscus a chronic ulcer the size of a shilling, with indurated edges, was seen to be situated about the centre of the lesser curvature. From the base of the ulcer a sinuous track led upwards and to the right through the substance of the pericardium. All the other organs were apparently healthy.

When grating a nutmeg start from the blossom end. It will be found to grate much more readily.

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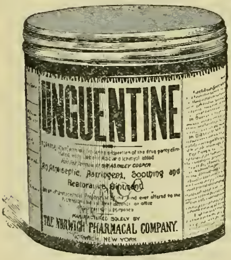
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THE NORTH CAROLINA MEDICAL SOCIETY.

The Forty-fifth Annual Meeting, Charlotte, N. C., May 3d, 4th and 5th, 1898.

FIRST DAY—MORNING SESSION.

Dr. R. J. Brevard, Chairman Committee of Arrangements, called the Society to order at 10:30 o'clock.

Rev. A. C. Barron, D. D., pastor of the Tryon St. Baptist Church of Charlotte, offered a prayer invoking the blessing of the Great Physician who healed men's bodies as well as their souls.

Mr. C. W. Tillett made the address of welcome to the Society, and Dr. J. Howell Way responded in behalf of the Society.

President Duffy then took the chair and called the Society to order for the transaction of business, and opened the business of the Society with an address.

The roll was called by Secretary Jewett.

Committees were appointed as follows:

Committee on Credentials:—J. C. Montgomery, T. M. Jordan, A. A. Kent.

Committee on Finance:—C. M. Poole, Albert Anderson, R. L. Gibbon.

Committee to take in charge President's Report:—George W. Long, Oscar McMullan, R. J. Brevard.

The subject of Medical Jurisprudence and State Medicine was taken up, and report was read by Dr. J. S. Brown.

Dr. Geo. W. Long.—Since Dr. Brown wrote me a letter inviting me to help in his work in the department of forensic medicine in this meeting, I promised him to do so, and I am sorry to say I let it escape my memory until I received a copy of the program of this meeting. However, I have long since learned that our reporters in the various departments of our profession have got to adopt what is said by some wise philosopher—Talleyrand, I think—that the world does not need so much reforming as it does reminding, and to go over work that has already been done by other folks and examine it carefully and arrange it into a comprehensive whole so as to make it instructive to others. That applies of course to work already done, and I might spend a few moments profitably here in calling your attention to a subject that is not properly under the head of something that has been done, but something that is about to be done that affects us as a profession, and in picking up or catching up something that has already been announced by another and repeating it, we may perhaps receive impressions that will bring about some concert of action. Now, while discussing the application of medical knowledge to the solution of questions connected with the administration of justice, permit me briefly to call your attention to something which threatens to impede the progress of scientific medicine and surgery in this country. My attention was specially directed to this by a letter from Dr. Kelly, of Baltimore. I afterwards had some conversation with him, when he told me that he had sent out a large number of similar letters to members of the profession in different sections of the country. I presume therefore that some of you have received such letters and have had an opportunity of acquainting yourselves with his views. I simply wish to emphasize what he has so well said, and will try to follow his line of thought. There is a bill now pending before Congress entitled, "A Bill for the further prevention of cruelty to Animals in the District of Columbia." The number is Senate Bill 1063, Calendar 136.

Following these remarks Dr. Long presented an interesting and instructive paper.

T. S. McMullan.—About two weeks ago I got a letter from Dr. Kean of Philadelphia, with reference to this subject, and he asked me to write to the U. S. Senators from this State and also solicit as many of my friends as I could get to do so, and to ask them to express themselves on it. I received a reply from both of those Senators in which they both stated that they would oppose the bill. I merely state that to enlighten you. I solicited several other physicians to write in answer to Dr. Kean's request, and I presume they got practically the same letters from the Congressmen that I did.

Dr. J. C. Burroughs.—I can vouch for what Dr. McMullan says about both our U. S. Senators, and also for the Congressman of our district. We brought the bill to their notice and received replies from all three of them and they agreed to oppose the bill if it ever came up, but said the chances were that it would never come up.

Dr. Oscar McMullan.—I think it

well for this Society to go upon record in the shape of a resolution to be sent to our Representatives, so that they can see the sense of this Society, and I move that a resolution be prepared in this Society for that end.

Dr. A. G. Carr.—I have received a communication from Senator Butler saying that he would oppose the bill. The following resolution was adopted:

Resolved, That the Medical Society of North Carolina, in Convention assembled, in the city of Charlotte, May 3, 1898, express its unqualified disapproval of the Anti-vivisection Bill now pending before Congress, and that the President of this Society appoint a Committee to memorialize our Senators and Representatives in Congress to use all honorable means to defeat its passage.

Dr. R. D. Jewett.—The Society adopted a resolution on that subject at a former meeting, and it was sent to our Senators and Representatives.

Dr. T. S. McMullan moved amendment by making resolution apply to the specific bill that is before the Senate now, number and all.

President Duffy submitted the resolution as amended, and it was unanimously adopted.

The following Committee was appointed to memorialize Senators and Congressmen: A. G. Carr, G. W. Long, P. E. Hines.

Dr. W. T. Pate read report on Pathology and Microscopy, after which the Society adjourned.

FIRST DAY—AFTERNOON SESSION.

After calling the Society to order, President Duffy requested Dr. E. C. Register to take the chair.

The privileges of the floor were extended to visiting doctors from other States.

The first paper read was by Dr. H. S. Lott on Meddlesome Gynecology. Discussed by Drs. Oscar McMullen, McGuire of Richmond, G. T. Sikes and H. A. Royster.

The reading of Dr. Minor's paper, which was next on the program, was deferred, and instead, Dr. J. C. Burroughs read a paper on "A Few Suggestions on the Prevention of Tuberculosis, this being the subject for the annual debate. It was discussed by Drs. A. A. Kent, Lewis, J. W. Long, J. A. Reagan, J. C. Walton, Albert Anderson, Hunter, A. G. Carr, A. J. Crowell, Oscar McMullan, Fox, and closed with remarks by Dr. Burroughs.

G. S. Tennant read a paper on "Uric Acid in the Causation of Retinal and Choroidal Disease."

Committee on Credentials presented the credentials of Dr. W. L. Robinson of Danville, Va., as a delegate from the Virginia Medical Society.

FIRST DAY—EVENING SESSION.

Society called to order at 8:30 by President Duffy.

The first paper was read by Dr. W. G. Stafford, being a report on Obstetrics.

This was followed by a paper by Dr. H. S. Lott on the "Treatment of the Umbilical Cord without Ligature." Discussed by Drs. Stafford, Burroughs, Hayes, Hines, Oscar McMullan, O'Hagan, Kent, and discussion closed with some remarks by Dr. Lott.

Dr. E. F. Strickland read a paper on "Three Interesting Cases of Obstetrics."

The last address of the evening was made by Dr. J. P. Munroe, his subject being, "Some Observations on the Radical Cure of Inguinal Hernia, with Report of an Interesting Case." The lecture was illustrated with stereoptican views.

Dr. Flippin told of an interesting case of Hernia that had come under his observation.

SECOND DAY—MORNING SESSION.

Nominating Committee was appointed as follows: Chas. J. O'Hagan, W. H. H. Cobb, W. P. Ivey, A. G. Carr, H. H. Dodson.

The first paper of the day was read by Dr. R. L. Payne, on the subject of Abortion. Discussed by Drs. Jordan, Hines and O'Hagan, and reply made by Dr. Payne.

Dr. C. L. Minor read a paper on, "What Should be the Attitude of the General Practitioner To-day Towards Serum Therapy?" Discussed by Drs. Borroughs, Levi and Reynolds. Discussion closed by Dr. Minor.

Dr. Geo. W. Long.—The committee appointed to take into consideration the suggestions contained in the president's address, desire to report as follows:

We approve the following suggestions: An earlier meeting of the Medical Examining Board in order that its licentiates may have an opportunity of joining the Society, and as a further inducement it is heartily recommended that the usual fee of five dollars be remitted to those licentiates who join the Medical Society the same year in which they receive their license. Furthermore, that in order that we may enlist the sympathy of all the younger practitioners of the State, we recommend that any such practitioners shall be vouched for by the physicians already members of this Society and who shall accompany his application with the usual five dollars fee and shall sign the constitution by power of attorney invested in him by the recommending physician, shall be elected to membership provided such action shall be confirmed by the Society.

Respectfully submitted,

R. J. Brevard,
Oscar McMullan, } Committee.
Geo. W. Long.

There are other suggestions in the president's address which we thought about carefully and while we were in sympathy with some of them to a certain extent, and though we had a right to pass upon them, still we felt that as all things that are allowable are not expedient, that under the circumstances it would be the wisest course not to offer any recommendation on those points.

Dr. Sikes.—I would just like to ask Dr. Long in omitting the initiation fee, if he proposes to have the new licentiates pay two dollars as we who belong to the Society already, have to do.

Dr. Long.—The usual dues thereafter, of course.

Dr. Munroe moved that the report be adopted.

Dr. Faison.—There is one feature in that report that I want to enter my protest against, and that is letting members join the Society by proxy. I have been a member of the Society for twenty years, and in that time it has been voted down in this Society several times. I don't think it is the best thing for the Society that we should allow that resolution to pass. I think that those members who are going to be the best members of this Society will think enough of the Society to go to its meetings and join in person and not by proxy, and I do hope the Society will stand by the record it has made in the past twenty years, that members cannot join this Society by proxy.

Dr. Hines asked that the Secretary read Section 2, Articles 3 and 12 of the Constitution for the benefit of the members of the Society. This will settle the question right off.

Secretary Jewett read the Articles as requested.

Dr. Poole.—I move that a substitute for the motion be made when the hour arrives for miscellaneous business, and this report be then taken up.

Dr. Munroe.—Since seeing the Articles of the Constitution, and hearing them read by the Secretary, it appears that these recommendations could not be acted upon except in the form of a resolution offering an amendment to the Constitution. I, therefore, withdraw my resolution with the privilege of renewing it in another shape at the proper time.

Dr. Poole moved that the report be taken up item by item when the hour arrives. This motion was adopted.

Dr. Hodges.—Can I ask the Committee to consider the recommendation that I understand you to make relative to the interchange of license certificates between the different States? Did I understand you correctly when I understand by inference, at least, that you thought in your judgment and previous experience that would be a good move?

President Duffy.—Yes, sir.

Dr. Hodges.—Now, Mr. President, am I asking too much when I suggest that the committee take that question into consideration before they report at this second meeting that we are going to have for the consideration of this subject? If you will excuse me one moment, gentlemen, I will tell you why I would like for that committee to consider what I understand the President to say. It is this: As you all know, I am a North Carolinian, and stood the examination in this State, and although I carried the credentials of an examining board that I had the highest regard for and that all other States had the highest regard for, because they have modeled all their boards after our board, and although the Virginia board recognized that they would like to pay me the compliment of not putting me through the drudgery of standing an examination, still by law they had to require of me a drudgery in which I suffered many things of all men for about twenty-seven consecutive hours. Now, Mr. President, I believe, coming as I do from Virginia and knowing the members of that board as I do, and knowing that they have a good board, and knowing that they recognize that North Carolina has a good board, and also that other States have good boards, they I believe are willing in a certain degree for this interchange of courtesy, and because of the fact that many of our men live on adjoining lines, etc., and I believe if they had a helping hand from us over here, they would be willing to consider this measure. In fact, they have considered that if they exchanged a courtesy with one State they would have to exchange it with every State. I was discussing this with you after your address yesterday, and you gave it as your opinion that this would not be necessary. Now, the question is with us, we all believe that this medical profession ought to be fenced in with some kind of a barrier to protect it from quacks, but we do not wish these examining boards to be hardships, and I speak feelingly upon this matter, gentlemen. I have suffered, as I say, and some of my confreres here have suffered likewise, and I hope it is not amiss when we ask the committee to consider the recommendation that has been made. If they are not allowed that privilege, the Society would consider whether they have the right or whether it is an opportunity for appointing a special committee to confer with some of the other States as to an interchange of courtesy.

Dr. Sikes.—With all due respect to what my friend Dr. Hodges has said, it strikes me that it is a question whether this commitee has the right, whether we do not require a legislative enactment before we can do anything of that kind. While I know that it looks mighty nice that the State acknowledge the credentials or the license from our State Board along on the border line, I should like to ask Dr. Hodges if he would recognize the diploma at his institution. If we wanted a diploma from his institution, would we have to go up there and stand their examination?

Dr. Faison.—As a motion has been made that this report be taken up under the head of miscellaneous business, is not this discussion out of order?

Dr. Geo. W. Long.—Give me a moment. Being a member of the committee, I would like to say in deference to the president of the Convention and to my friend, Dr. Hodges, of Richmond, that although a little out of order, we did consider your valuable suggestion with regard to this matter and drafted an expression of opinion thereon, and after more careful consideration of the laws of the States, as we understood it, and of the dangers that might accrue from extending privilege to good old Virginia that we probably might not be disposed to give to some other States, we became a little dubious about the expediency of exercising even a doubtful right, and after advising with some of the older members of this Society who have been more experienced than I myself at least, we felt that for the good of this Society,—that is the only consideration we had,—not for any disrespect or disregard to your kind and valuable suggestion offered in your address, but solely for the good of this Society, we felt that it would be expedient at least to let that matter rest for a while, and as Dr. Hodges wanted to know something on that line I make this statement in behalf of the committee.

Dr. Burroughs.—I move the whole matter be referred to the committee on legislation. This is is all out of order.

Dr. Munroe.—Hasn't that whole matter been postponed?

President Duffy.—It seems that things are getting very mixed. The report of the committee has been made. No suggestions of amendment to this report can be made unless we have a committee to take the matter into consideration and present it in some tangible form.

Dr. Hines moved that the resolution postponing this question be set aside and that we discuss this question now.

Dr. Faison.—Since I understand that you passed the resolution to postpone this matter and bring it up under miscellaneous business, that ought to settle the whole matter. Then it will come up and be discussed. Everybody is here ready for the election, and I call for the regular order of business.

Dr. Robinson, of Danville, Va.—As a question of privilege, may I make a remark and state that I am a member of the State Medical Board and we were anxious to make that exchange of courtesy between North Carolina and Virginia. We submitted that question to our attorney and he stated that it was unconstitutional because we did not discriminate between other States, but so well satisfied are we of Virginia with the examiners of your State and so closely allied are the interests and feelings of the two States and two Societies, that we have always desired in some way to have that courtesy extended. New York exercises an optional power in that way and we have thought it possible that by a practical verbal examination that that courtesy might in some way be extended between the two States without any direct violation of the law. But is, under Dr. Long's statement, there is any objection on the part of this Society, of course Virginia could not desire it.

Dr. Payne.—As a licentiate of the North Carolina Board of Examiners and an ex-member of the North Carolina Board of Examiners and as a man who has had to go through the treadmill of Virginia's Medical Board, I should like to endorse any action looking to an interchange of courtesy between the two Boards. I can certainly testify as an ex-member of the Board of Medical Examiners that the Virginia Board of Medical Examiners, just like the old time religion, is good enough for me.

The next business was the election of two members to the State Board of Examiners to take the place of Julian M. Baker, of Tarboro, and H. B. Weaver, of Asheville, whose terms expired at this session. The change in the constitution adopted at the last meeting provides that the two members elected in 1898 be elected for four years.

Dr. E. C, Register of Charlotte, was nominated by Dr. Burroughs, of Asheville, seconded by Drs. Brevard and Regan.

Dr. H. H. Fletcher, of Asheville, was next placed in nomination by Dr. R. H. Lewis, seconded by Dr. Battle.

Dr. Albert Anderson, of Wilson, was then nominated by Dr. Picot, and seconded by Dr. Sikes.

The ballot was taken, which resulted as follows:

Dr. Register,	88	votes.
Dr. Fletcher,	57	"
Dr. Anderson,	97	"
Dr. Irwin,	1	"
Dr. Caldwell,	1	"
Total,	244	"

cast by 122 members voting.

Dr. Register and Dr. Anderson were declared elected.

Dr. Hodges.—Gentlemen of the Society, I hold in my hand the honor roll of the North Carolina Medical Society. That honor roll contains the names of this Society whom we are glad to call. Foremost in that list are a number of names of men who have grown gray in the service of our Society, they are men who have seen the battle, and have stood the storms of the life you are all so well acquainted with. They are the men who were engaged in the inception of this Society. They are the men who fondled it as a little babe at first, and they are the men who through years of grave trouble have ever stood by the North Carolina Medical Society and made it what it is to-day, the synonym of all that is good in the medical societies of the United States. Now in that list, in the years from 1849 through 1868, I find that we have the names of some of the most distinguished men that the medical history of North Carolina knows to-day, and to show the interest that these men have ever felt in the North Carolina Medical Society since its inception, I may say that sitting in front of me as I stand, and unaware of what I shall propose, are several of those gentlemen whom I wish to honor by asking this Association to pass the following resolution:

Resolved, That the members of the North Carolina Medical Society, dating from the signing of the Constitution in 1849 through 1868, be made honorary fellows of this Society.

And chief among those I see sitting in front of me the gray haired veteran whom I know it is necessary for me to call attention to here to-day.

Those gentlemen are:

1851—Robert Gibbon, Charlotte.
1852—Allman Holmes, Clinton.
1855—Peter E. Hines, Raleigh.
1857—R. H. Winborne, Barnitz.
1858—Geo. A. Foote, Warrenton.
1859—Eugene Grissom, Pueblo, Colorado
1860—W. J. Jones, Goldsboro.
1860—Chas. J. O'Hagan, Greenville.
1860—J. W. Jones, Tarboro.
1860—J. K. Ruffin, Wilson.
1867—Wm. R. Wood, Scotland Neck.

Dr. O'Hagan.—Mr. President, and gentlemen of the Society, I did not exactly understand the object of that motion, nor do I in fact understand it now. I don't want Dr. Hines and myself to be put on the shelf. Both of us want the privilege of making a visit once in a while. I consider this not only as a profitable matter, but as an honorable distinction. Inasmuch as the roll of honor is about to be increased, I would like to ask a favor from this society. I have a distinguished friend, a very dear friend to me, who well deserves many honors from his own State which this State can confer upon him. His voice has been heard and his papers read, and they are all valuable per se. He is here now and I think this society would honor itself, and would certainty gratify me immensely, if Dr. Wm. L. Robinson, of Danville, Va., be placed upon the roll of honor as an honorary member.

Dr. Hines.—I would like to say just one word to the Society in accepting the place assigned me. I thank you for the honor conferred by putting me on the roll of honor. Since the time I joined the Society I have always tried to uphold the honor and integrity of the Society above everything else in the medical profession in this State. I again thank you for the honor conferred upon me.

Dr. Robinson.—I am unwilling to let this pass without at least expressing my heartfelt thanks for the honor just conferred by this Society, and I can say with all faith and honesty that no honor could be conferred upon me that I would appreciate more highly.

Sec'y. Jewett.—The Secretary of the Board of Examiners asks me to announce that the Board will be ready to pass upon the applications for license this afternoon, so that they will be in time to join the Society. I would also like to ask the members to see that their names are registered on the book at the door.

At 12 o'clock a conjoint session was held with the North Carolina Board of Health, with Dr. Battle, of Asheville, in the chair.

The first thing in order was the report of Secretary Lewis, which was read by Dr. Lewis and adopted by the Convention.

Dr. Lewis offered the following resolution:

Resolved, That the North Carolina Board of Health and the Medical Society of the State of North Carolina in conjoint session assembled endorse the Caffery bill enlarging the powers of the United States Marine Hospital Service, and respectfully request our Senators and Representatives to support the same.

I would like to call attention to the fact that this bill was introduced by Senator Caffery, of Louisiana, and that the quarantine of the United States is superior to anything in America, and probably equal to any quarantine anywhere. Senator Caffery introduced the bill and put it into the hands of the United States Senate, and the most ardent advocate of it is Senator Vest of Missouri.

Dr. Lewis asked for any suggestions the Society might have to make, to help him out in conducting the health affairs of the State.

Dr. Fletcher.—I should like to ask that we try to get some sort of compulsory vaccinatton law in North Carolina. If we had a law similar to that which is in effect in some of the other States, requiring every child before it goes to school, either public or private, to be successfully vaccinated, it would be a step in the right direction and in a few years we could get everybody vaccinated.

Dr. Lewis.—A bill on that subject was introduced in the last Legislature and treated with absolute contempt. The result of this would be to prevent the children from going to school if they are not vaccinated. Now, the practical difficulty on educational lines is to get the children to go to school at all. This bill referred to was prepared at the request of prominent members of the House.

Dr. Haigh.—I requested our representative, Judge Sutton, before he left for Raleigh, to introduce such a bill, and he told me that he had gone to the Secretary and got him to write it. There is one point about this matter that I think we might strike at the root of: Why is it that the people throughout the State are refusing to have their children vaccinated. Isn't it greatly due to the fact that the virus used is taken direct from the animals? Formerly there was no objection at all to vaccination. All the virus used was humanized before it had passed through to the human system. The result of that was a modified condition. We got a virus that did not produce the violent results that the bovine virus does now. There is great fear throughout the country from the violent results of vaccination that men are going to lose their arms and that children are going to die. What is the cause of it? I know that in using virus I have, as far as as I could, selected all those points that have been free from any color stain, and where I have done that I have gotten a very satisfactory result and very little inflammation. I believe if we go back to the origin of this, there has been such a demand for virus throughout the country that they have dipped too many points in one part of the cow, and in that way instead of getting the pure virus they have got intermixed with it the result of inflammation in the udder, and if something could be done along that line we would not produce this condition, this high state of inflammation in the arm, and I believe there would not be so much objection to it in such cases. It has been perfectly fearful in some cases. I sent a request for virus that was purer. I think it has had a great deal to do with the matter. We couldn't do anything with the people in our county. I don't know why. I thought this: That if that matter was taken completely under the control of the Board of Health, if our Secretary would get all the virus for the State from some one point that he was perfectly certain of, that if all that virus underwent inspection before it was sent out, we would get better results than we do now. It is reported all over the State, I suppose, that a half dozen lost their lives and lost their arms from vaccination.

Dr. Minor.—I would like to take up this tendency to advocate a humanized virus. My experience has been that all refused to be vaccinated unless I assured them it was bovine virus. They say they don't want anybody else's virus to be stuck into them, they want it to come from the cow. It has been our experience in Asheville that we have got better results from using glycerine tubes than we have gotten from points themselves, and I would certainly suggest to anybody who is doing much vaccinating that they will find them much handier to use and more satisfactory in every way.

Dr. Burroughs.—A great deal of the prejudice lingering in the minds of the public to-day is from using humanized virus. I would say for the benefit of the Society that they have had smallpox down in South Carolina, and I strongly agitated the vaccination of our entire town, if necessary to quarantine against those people. That was before Christmas. I also went before our local Board of Health and urged the importance of vaccinating the school children before opening the schools after the holidays. I vaccinated something like 3,800 people since the first week in November, and I have made only one visit to any of our people since I vaccinated them. I have used the national vaccine points and I would say that they have taken about nine times out of ten. I had no trouble from them.

Dr. Anderson.—I would like to recommend what Dr. Minor said about using vaccine lymph tubes. I wanted to be careful about what material I used, and I wrote and asked Dr. Kinyoun what he would advise and to send me 100 points, and he sent me lymph tubes.

Dr. Fletcher.—Just along this line, I would say that for a long time I used the points, it is only recently that these tubes have come out. My experience has been that even in primary vaccination half of them did not take. Since we began the use of the tubes,—that is, all we could get, and Dr. Reynolds and I did the work,—and of these 360 cases, every one of them took effect. We had a few bad arms, severely inflamed, and some of them didn't get well immediately, perhaps there are two of them not well yet. I saw the inflammation in one of those arms, and even the muscles below the elbow were swollen. It is not only easier but safer and cleaner, and will take more effectually than the points.

Dr. O'Hagan.—It is strange that the discovery of Jenner, the value of which has been demonstrated time and again, should be antagonized to-day not only among the ignorant but also among intelligent people, but it is unfortunately so. You may talk what you please about vaccine virus, etc., bur no matter what vaccine virus you use you will find some people make the disagreeable results. I never saw a fatal case, though I have vaccinated many thousands. It makes but little difference what kind of vaccine matter you get or under what varying circumstance you give it to the masses of the people such invaluable protection as this is, somehow or other it is not acceptable. I have been in the habit of using fresh vaccine for the last thirty or forty years, perhaps more. Every year of my life I have vaccinated numbers, and I regret that I didn't insist on others being vaccinated and paying me a dollar ror it, but I have tried to impress upon them the extreme value of vaccination. I don't know anything that will make them accept vaccination except their fear of smallpox, and the best way is to get a first class case of smallpox and drop it down in their midst.

Dr. Duffy.—Dr. Minor referred to liquid virus, which I have had some experience with. It is put up in hermetically sealed glass tubes, and I think possibly it may be well to refer to some of my experiences in that connection. I am sorry I can't say just where those tubes were put up, somewhere near Chicago, I think. They are very fine tubes, sealed, and there is a little rubber tube which goes with it, and you break off both ends and attach the rubber tube to one end, and by pressing the rubber tube you get out a drop of virus. I used that at first by carefully disinfecting the arm. At first I took a razor and without drawing blood, got off the epidermis and put the little drop upon the spot. In almost every case it struck in. I rarely got a failure, but I got very sore arms, and no matter how little I would put on it seemed that I got very sore arms. After some little experimenting with it as to how to do it, instead of putting it in one spot I put it in three spots, and it seems to me,—I can't say from enough experience to offer any strong opinion,—but it does seem to me that three very small spots have given me less trouble than one spot, no matter how little I put in that one spot. One thing I want to refer to particularly is the manner of dressing these arms. There is a great deal in that. A great deal of trouble has come from the party hurting the arm in some way. Vaccination shields, you know, are sold in the stores. They are little wire concerns like the mask you wear over your face in baseball playing. You put them on the patient's arm, and they roll around and hurt the arm about as bad as anything that I happen to know of. I have taken bandages and put them around the arm, but everything was unsatisfactory to me until I took a piece of ordinary rubber adhesive plaster, enough to go about an inch or so above the inflamed point, and attached to that a piece of tape along each side, and then attached that rubber adhesive strip under the arm to come nearly around, say leaving a space of an inch or two a little distance from the sore on each side, so that the plaster will not come within the area of the inflammation. Then put a lot of lint on each side under the tape so as to elevate it to keep from pressing it on the sore. Put under that, whatever you please, but you have always got to have a point of attachment which you can rely on, and you can tie your tapes as often as you please and it prevents hurting the sore. That to me prevents a great deal of trouble, and I have had people vaccinated and quite a little difficulty in keeping the bandages from slipping.

Dr. Murphy.—I understood the Secretary to ask the Conjoint Session for some advice to help him out in conducting the health affairs of the State. It seems to me that we have wandered off from the subject. So far as I am concerned personally, I feel that we have our health affairs in the very best hands we could put them, and I endorse fully what the Board of Health has done, and would recommend that they continue these health conferences about through the State. I would be glad to have them up in our part of the State again this year.

Dr. Fletcher.—I think the very worst results that we may get from vaccination are better than small pox, while I confess that the popular prejudice against vaccination is not wholly without some justification. In our experience during the last scare. I speak for myself and my associates. before vaccinating we washed the arm with hot water, then washed it with alcohol, then with a sharp knife made a sharp abrasion, and then made the application of the virus. Then we usually dressed the arm with sterilized gauze, and this dressing to be removed again whenever the sore began to manifest itself, and while we could not follow up the treatment of many of these cases. yet in a great many cases we did follow them. True, we did not lose any lives, we did not lose any arms, but we must confess that we did have quite a number of very bad arms! I know in the case of my only daughter, whose case I watched carefully; she was for three days violently ill. She was carefully trained in the necessity of not scratching the place, but in spite of all the care I could take she had a high temperature, suffered a great deal of pain, had a profound constitutional disturbance, and an extensive eruption, and was in other ways quite sick, and in one or two of the cases that we had we were really for a while in great fear for their lives. Now, I make this statement to say simply this, that while we believe in vaccination and think it ought to be done, and want to urge it, yet it does seem to me that something should be done, that some steps should be taken to secure a virus which is less active, which will not produce such violent constitutional disturbances, and when we can do that I believe the popular prejudice will to a great extent rapidly fade away. I am glad to hear what my friend, Dr. Haigh, said in regard to the selection of points, and hope this will solve the difficulty. We thought that possibly the trouble was that the virus had not passed through a large enough number of animals, but certainly there was something the matter. We used mostly the Alexander points, and latterly we got to using some National points. indeed I came to the conclusion that I would not use another Alexander point, and I would not vaccinate one of my children with the Alexander points. The others may be just as bad.

Dr. Kent.—I had hoped this would take a different turn. I have listened with a great deal of pleasure to this question of vaccinating, still I feel it has not had as much value as if it had taken the other turn, and I am disposed to call out the other line of discussion. My town people dread most the evils they know of, not the evils they know not of. We know typhoid fever, we know measles, we know mumps, we have them to do battle with almost continually, and if in a discussion here I can be better able to prevent a single case of typhoid fever in my town during the coming season, I believe I will be more benefitted by the knowledge of how to do that than I would by any knowledge of better vaccine virus, and for that reason I desire to give it that kind of a turn. Some weeks ago I had a gathering of physicians in my county for the purpose of discussing what we might do to prevent the prevalence of typhoid fever in my county during the coming season, We discussed the various means that we know of. and resolved that we appoint ourselves each a committee of one to do what he might in his especial community among his patrons to teach them how to live, how to clean up the hot beds of the disease around their houses, and how to obtain pure drinking water, and if the members here can make suggestions to me that will enable me more practically to teach our people what to do to prevent the spread of typhoid fever during the coming season, I will say I will be greatly obliged.

Dr. Reynolds.—I didn't rise to discuss typhoid fever I merely wanted to have a few words to say upon vaccination. Since the doctor has changed the topic of the discussion I will return with your permission to vaccination for a few minutes. It seems to me that a man when he is vaccinated has to have some constitutional disturbance and a sore arm and he may be sick, before he is successfully vaccinated. You might place the virus in some man's arm and have a little pit of a scar, and would you call that man successfully vaccinated? I shouldn't think he would be. I remember in speaking of the varying strength of the vaccine, I remember having vaccinated an interesting case, one child, in November, failed to take, with one point from a certain farm. I vaccinated again in December, and it failed to take, and I got that point from Dr. Burroughs. I vaccinated again in April with lymph, all these from different places, and that took and it set up the fire in all three, so all three took, and I had three scars on that child's arm, and I did not get any vaccine lymph in the other sores. I have seen two cases like that, and we have been vaccinating the charity patients of Asheville, and I think Dr. Glenn, who has gone around with me, has witnessed a similar case of that kind.

Dr. Glenn.—I wish to state regarding the lighting up, or what seemed to be lighting up of latent fire in arms, that my brother was vaccinated about a month ago, and we could see nothing but the dim appearance of a previous vaccination. That time I vaccinated him with a point. Later on I vaccinated him, about six or eight days ago, with lymph, and when I left Ashville, the old vaccination, which was more than an inch distant and I am sure did not touch it, was the brighter of the two, and it had vesicles. I saw another case, and before this case of my brother's I remember one that I vaccinated in December. It seemed to be latent, there isn't enough to cause successful vaccination, when a little bit more is added it causes a lightening up of the two places.

Dr. Lewis.—I availed myself of the opportunity in Washington to inspect the national vaccine establishment, and I was pleased with the status of affairs.

Dr. Burroughs.—I want to say in regard to vaccination that I did not use the tubes which the Asheville Board of Halth has been using, but I have been very much impressed with the report they have given me in regard to them. It seems to be more certain than the points, but I am satisfied with the points. I would say in regard to Dr. Kent here, my impression is that if we get pure drinking water, filtered water, with a pure water supply, and if he will destroy the excretia from his typhoid patients, he will greatly lessen it in his connty. In every case you should destroy the excretia. Therein is the key to health, therein is the protection.

Dr. Minor.—We all know that typhoid is predominent in many sections of the country. The trouble generally comes in with the poor, the uneducated, the stupid. We want to teach them first that a well is a bad thing. Where a well cannot be avoided, it must be looked upon as something sacred. We must teach those people that water-closets, that privies, must be watertight. The ordinary privies are nothing but leaky tubs which are a continual souace of soil pollution. Our water supply and soil pollution are things we must look to. We want to see that the privies of every day use are put into proper shape. If we will do this, though we cannot discountenance wells where wells are unavoidable, we can insist on their putting the privies far from them and making those prtvies watertight. Scare the people, tell them they are liable to die the next month, throw out all the horrible pictures you can, get them scared and you will get them to do something. Until they are scared, are they all unqualified fools. Don't wait until you have typhoid, scare them before they have it.

Dr. Albert Anderson.—We have been talking in Wilson a long time about how we should introduce the water into our houses, and it is due to Dr. W. S. Anderson in talking plans and formulating plans which our Medical Society took hold of, and memorialized our Board of Aldermen to adopt, and they adopted our plan in a modified way. If this plan is carried out, and we introduce water into our houses and have sewerage from our houses, we will give this State an object lesson that Dr. Lewis can use in a circular letter.

Dr. W. S. Anderson.—The plan is just simply this. We put in water and sewerage about three years ago, water before that, and up to this time there have only been about 200 famtlies who put it in, but their plan was to make a private enterprise of it, and the result was most of the people did not take it. I thought it cost toomuch and I finally sent and got some catalogues and price lists, and found that my suspicions were true, that they were charging an enormous price, so we got our local society to appoint a committee to investigate the sanitary condition of our town, and that committee reported to the Society that it was not good at all as a sanitary measure, because the people had one here and one there, and a good many open privies in town, right in the neighborhood, they were not getting any benefit of the sewerage. Our Society then appointed a committee to memorialize the commissioners of the town in which they recommended that the town investigate as to the cost of the material, and that the town buy the material in large quantities and give it to the people at cost. To put it in that way it wouldn't be any outlay at all to the town. They have not yet decided what they will do, but we think that we will get in May a new Board and that we will get the town to do that for the people, and that not a great while hence we will have the water works taken by all the people. Then there will be a large number of people who can't take it even at cost. We proposed to the town that they put it in for these people on credit and take their notes for it, because at the present water rents it will pay for itself anyway in three years even if the poor fellows never pay it back. Our idea was that if we could get these people to put it in, whenever we get enough people to take water enough to pay the interest on our debt, then we propose to reduce the water rent if it is not more than one dollar a year for the family. The town is not in it for a money making business. We think that we can in that way get the full sanitary benefit of health, and make it so cheap that all the poor people can get it.

Dr. Poole.—While it is absolutely necessary to have pure water, and we have shallow wells in our towns, I think we ought to emphasize the point of the drinking water, and also that all milk ought to be boiled. I am much obliged to Dr. Lewis for his health conference in our city. It has done a great deal of good there, and got the laity stirred up as well as the physicians.

Dr. Long.—I am glad to see that this question has resolved itself at last as to what is the best thing to do with air and water. I believe if we knew all about it we would know mighty nigh all there is to be known.

Dr. Minor.—I would like to cite as an example of what Dr. Anderson says, that in Asheville certainly the decrease in typhoid sickness has been in direct proportion to the increase in the use of our city water. You understand, gentlemen, we cannot get all of our people to use it, but in proportion as the wells disappear and the hydrants come in their places we find that typhoid is decreasing. That is what we must expect all over the State. As we introduce this water not only into the towns but into the houses, then we will do something. A great many people come to the Health Board and want the city to give them credit for the expense of putting in the city water. I should think that the Board of Health in the State in asking for recommendations would favor the putting in of water and sewerage, and when this old State is watered all over and wells are absolutely abolished except in the country districts, typhoid will be abolished in the cities.

SECOND DAY—AFTERNOON SESSION.

A paper on "Report of a Case of Osteo-Sarcoma Treated with the Toxins of Erysipelas and Bacillus Prodigiosus," was read by Dr. J. C. Walton, and discussed by Drs. Robinson, Jewett and Minor, closing with remarks by Dr. Walton.

He was followed by Dr. A. J. Crowell, with a paper on "Modern Therapeutics."

Dr. R. A. McGinnis read a paper on "Some Thoughts about Typhoid Fever." Dr. Taylor, of Richmond, was called on and made a talk about the Surgical Treatment of Typhoid Fever.

A paper on "A Shawl Pin in the Trachea," was read by Dr. K. P. Battle, Jr. Similar cases along that line were reported by Drs. Galloway, Carr, Faison and Misenheimer.

The Secretary of the Board of Medical Examiners, Dr. Weaver, of Asheville made the following report:

Of the 80 (eighty) who applied for license, 62 (sixty-two) passed. They are—

J. A Williams, J. T. Stewart, J. T. Burrus, N. G. Shaw. R. S. Rierson, J. B. Hunter, F. T. Long, R. E. Jenkins, W. R. McCain, G. F. Duncan, Walter Jackson Jones. Thomas Stringfield. J. E. Moore, John Davidson, W. A. Rogers, G. A. Caton, J. H. Mock, R. D. Flippin, W. L. Query, J. D. Williams, J. I. Campbell, Herbert B. Thomas, J. E. Kerr, H. D. Stewart, G. A. Stevens, F. H. Gilreath, George D. Everington, J. T. Moore, S. T. Flippin, I. H. Foust, O. P. Schaub, John B. Ray, W. P. Knight, Martin McNeill, Benjamin Palmer, J. P. Thompson, Cha's. Highsmith, J. W. McPherson, R. J. Price, Thad S. Troy, E. C. Boyte, A. S. Pendleton, S. F. Pfohl, O. L. Hollar, C. H. Bynum, E. H. Spainhour, W. H. Graves, Alonzo D. Lord, J. R. Mask, S. B. Woody, C. B. Stephenson, F. L. Darbonnier, Charles VanBergen, E. Moore, Eugene D. Denson, C. C. Whitley, A. S. McMillan. W. H. Brooks, Plato H. Lee, James R. Parker, J. W. Young, S. A. Malloy.

Of this number Dr. W. H. Brooks, of Greensboro, made the highest general average, 97¾—with one exception the highest mark ever received by a candidate.

Drs. A. S. Pendleton, of Roanoke Rapids, and Plato H. Lee, of Alexander, each made 93.

Dr. Minor moved that the Society proceed to the selection of the next place of meeting. Asheville, Fayetteville, Wilmington, and Newberne extended invitations to the Society to meet with them next year. The ballot resulted in Asheville receiving 64 votes, and Fayetteville coming next with 55 votes. On motion the vote for Asheville was made unanimous.

The election of officers was the next business before the Society. The following named gentlemen were elected for the ensuing year:

President—Dr. L. J. Picot, of Littleton.

Vice-Presidents—Dr. I. W. Faison, of Charlotte; Dr. H. H. Dodson, of Milton;

Dr. J. W. White, of Wilkesboro; Dr. W. C. Brownson, of Asheville.

Secretary—Dr. George W. Pressly, of Charlotte.

Treasurer—Dr. G. T. Sikes, of Grissom.

Dr. Picot was called on for a speech, and said:

Mr. President and Gentlemen: I ought not to make any speech and I promise you right now I will not, but it is certainly due you and due myself to thank you for this honor which to my recollection has come to but few men in this spontaneous way. It may not be out of place to say that any member of this Society from the first time he comes to one of its sessions even until he becomes a gray haired old man, should aspire to preside over it. I cannot say that I have nursed that ambition but inasmuch as it has come to me in this way, I am very, very glad, and I am very grateful to you, gentlemen, for giving it to me.

The following resolution, offered by Dr. Poole, was unanimously adopted:

Resolved, That the thanks of this Society are due and are hereby tendered to the President, Secretary and Treasurer, for the efficient manner in which they have performed the duties pertaining to their respective offices.

The report of the nominating committee was submitted by Dr. W. H. H. Cobb. It was as follows

Orator—H. S. Lott.

Essayist—C. D. Minor.

Leader of Debate—J. P. Munroe.

Board of Censors—W. O. McDowell, H. H. Harris, J. H. Tucker.

Publishing Committee—R. J. Brevard, J. C. Montgomery, R. D. Jewett, H. T. Bahnson.

Legislative Committee—R. H. Lewis, G. T. Sikes, Abner Alexander, Jas. McKee, H. A. Royster.

Obituary Committee—G. W. Long, J. A. Reagan, K. P. Battle, Jr.

American Public Health Association—W. J. Lanader, Charles Duffy, J. A. Burroughs.

North Carolina Pharmaceutical Association–J. W. McGhee, Jr., J. A. Wheeler, J. M. Flippin.

Delegates to the American Medical Association—W. J. Cheatham, C. J. O'Hagan, Charles Duffy, Willis Alston, J. W. Long, H. T. Bahnson, E. C. Register and Julian M. Baker.

Delegates to the South Carolina Medical Society—I. W. Faison, G. H. Morrow and W. T. Pate.

Delegates to the Virginia Medical Society—J. C. Walton, W. A. Graham, A. G. Carr, Sam L. Montgomery, W. H. H. Cobb.

Dr. Carr offered a resolution that the North Carolina Medical Journal should no longer be considered as the official organ of the Society. He said that another journal had sprung up in this State, and that it is the equal of any journal published. I have nothing against the North Carolina Medical Journal though it is not what it once was. I think this other one ought to have as much favor from the Society as the N. C. Medical Journal.

On motion of Dr. Faison discussion and action on this motion were deferred until Thursday morning.

SECOND DAY—EVENING SESSION.

The annual oration was delivered by Dr. Albert Anderon, on the subject of "Two Southern Pioneer Heroes in Surgery and Gynecology."

This was followed by the annual essay, which was read by Dr. Hubert A. Royster.

The Society voted thanks to these gentlemen, and moved that their papers be referred to the Committee on Publication.

Dr. Poole read the report of the Finance Committee, after which the Society adjourned in order to attend the banquet at the Central Hotel.

THIRD DAY—MORNING SESSION.

President Duffy mentioned that in selecting the place of meeting, nothing had been said as to the time of meeting. This was referred to the Committee on Arrangements. Dr. Murphy requested that such a time be selected as would not conflict with the meetings of the National Associations, as he belonged to two and would like to attend both.

After much discussion of the subject of electioneering by various members of the Society, the following resolution was offered by Dr. Poole;

Resolved, That the Committee on Publication be instruction to have the transactions of this meeting bound in cloth, provided that it can be done at a price not to exceed fifty cents per copy.

Dr. Long stated that the Committee on President's Address had made their report and that it was in the hands of the Secretary. This report was again read.

Dr. Munroe.—I offered a resolution yesterday, which was taken in hand by the Secretary, and under the rules it will lie over until the next meeting. If the Secretary has it I will read it:

Resolved, That Article 3, Section 2, be amended so that the following be added to it: That any licentiate who shall apply for membership in this Society at the current meeting and be recommended by the credential committee at the meeting at which he shall be licensed by the Board of Examiners, be admitted without paying the initiation fee of $5.

Dr. Duffy.—I would say that a very excellent young man wanted to send up $5 by me and become a member of the Society, and I informed him he could not do so without signing the Constitution and By-laws. I believe there is a rule in the Society to that effect.

Dr. Hines.—No man can join the Society without being present and signing his name to the Constitution. If a man wants to join the Society he can come here and join it. The road to it is very easy. It would be unwise to abate that rule.

Dr. Poole.—For two years the rule was suspended and it was found to be very unsatisfactory. I think in 1887 it was passed here, and in two years it was repealed, because it was very unsatisfactory.

Dr. Long.—I would just say to this Society as far as I am concerned that we were moved to make that suggestion, to take that step, to see if we couldn't recruit our ranks and increase our usefulness in the State. We don't want to do anything that is wrong, certainly not. We don't insist specially upon it. We only offered it as a solution of a question that was threatening the growth of our Society. The President has made the suggestion that if you wanted to, we could, for instance, recommend this courtesy between the States of Virginia and North Carolina about license, but we had some doubts about that, but we had a right to do what he recommended. We don't insist on anything. There is no special reason for urging them to do that.

Dr. Lewis.—As I understood this, it was to be considered item by item. I would like to have those items read by the Secretary.

The Secretary read report item by item. The first and second items were adopted, the third was not adopted.

Dr. Carr again introduced the resolution that the North Carolina Medical Journal should no longer be considered the official organ of the Society.

Dr. Bahnson moved that the resolution be amended by striking out the words "no longer." The original motion was tabled.

Dr. Carr offered a resolution that the transactions of the North Carolina Medical Society be no longer published piecemeal by the North Carolina Medical Journal, but that they be published as a whole within sixty days after the meeting of the Society, or as soon thereafter as possible, and that they be furnished to each member without delay.

Dr. Jewett. I would like to ask for an explanation of Dr. Carr's resolution that the transactions of the Society be no longer published piecemeal in the N. C. Medical Journal. Does that mean for us to infer that the Journal shall be debarred from publishing the papers read before the Society, and that they shall appear in some other Journal, but not in the official organ of the Society?

Dr. Carr.—I do not intend for the resolution to be interpreted that way.

President Duffy requested Drs. O'Hagan and Murphy to conduct the new President to the chair.

Dr. Duffy.—In vacating this chair to my worthy successor, I desire to thank you again for the honor you have conferred upon me and your kindness and leniency towards me in my efforts to perform the functions of the office.

Dr. O'Hagan.—Gentlemen of the Medical Society, I have the honor to present to you the presiding officer who will look after your interests, your morals and your general health for the next twelve months. He is eminently fitted for these conflicting duties. When by the united voice of this Society these honors were brought upon him he wanted to say like Job that these things which he feared had come upon him, but we all knew he didn't mean a word of it, on the contrary, like Barkis, he was very willing.

Dr. Picot.—I wish to thank you anew, gentlemen, for this evidence of your kindness and cordiality toward me, and I promise you to do the very best I can to promote the future interest and welfare of this Society. I can only hope that I can make good to you half the promises of Dr. O'Hagan.

The first duty of the incoming President is the appointment of chairmen on sections of the various branches of medicine. I will announce:

Pathology and Microscopy—Dr. E. B. Glenn, of Asheville.

Anatomy and Surgery—Dr. Goode Cheatham of Henderson.

Medical Jurisprudence and State Medicine—Dr. Thomas F. Costner, Lincolnton.

Obstetrics—Dr. W. W. McKenzie, Salisbury.

Gynecology—Dr. W. A. Graham, Charlotte.

Practice of Medicine—Dr. Benjamin K. Hays, Oxford.

Materia Medica and Therapeutics—Dr. C. S. Mangum, Chapel Hill.

Chemistry and Physiology—Dr. Joshua Tayloe, Washington.

The Society tendered a vote of thanks to the citizens of Charlotte for their cordial hospitality.

Invitations were read from the Presbyterian College and from Elizabeth College to the Society to visit these schools, and were accepted by the Society.

NORTH CAROLINA STATE BOARD OF MEDICAL EXAMINERS,

Session at Charlotte, April 28th to May 3d, 1898.

Examination in Anatomy.

Dr. J. Howell Way, Waynesville, Examiner.

1. Describe the femur.
2. Describe the occipital bone.
3. Give classification of joints.
4. Describe the shoulder joint.
5. Describe the pectoralis major muscle.
6. Name and describe the muscles of the posterior tibio-fibular region, superficial layer.
7. Give relations of external iliac artery.
8. Describe the external carotid artery and name its branches.
9. Name and describe the coverings of the brain.
10. Describe the glosso-pharyngeal nerve.

Obstetrics.

By Dr. H. B. Weaver, Asheville, N. C.

I. Describe the Uterus, giving—
  (1) The arrangement of its muscular fibres.
  (2) The distribution of its blood vessels and nerves.
  (3) A description of its external and its internal linings.

II. How is Extra-Uterine Pregnancy classified?
  (a) What are its effects on the womb?
  (b) What are the symptoms and diagnosis?
  (c) Give general and specific treatment.

III. What are the causes of Post-Partum Hemorrhage?
  What are the symptoms?
  What is the treatment, and *how* is it to be carried out?

IV. Define Puerperal Septicæmin?
  (1) Give its etiology: (a) Is it heterogenetic or autogenetic? (b) Do the retention and decomposition of the secundines produce the disease?
  (2) What are the symptoms and course of an acute attack?
  (3) Give in detail the treatment.

Gynæcology.

V. Pelvic Peritonitis.
  (1) What is the pathology?
  (2) What are the varieties?
  (3) Give its etiology.
  (4) Describe the symptoms.
  (5) What is the treatment?

VI. Describe briefly the operation of Vaginal Hysterectomy.

VII. (A) How, and from what must you differentiate an Ovarian Cyst in the Abdominal Cavity?
  (B) Describe the principal points in the technique of a Laparotomy for the removal of the Uterine Appendages or a Cyst?
  (C) How would you tie a Staffordshire Knot?

VIII. Chronic Endometritis—
  (a) Define and give the varieties.
  (b) What is the pathology?
  (c) What is the causes?
  (d) Give symptoms and physical signs.
  (e) Give the treatment.

Pediatrics.

IX. What is Noma?
  (1) What are the causes?
  (2) What are the symptoms?
  (3) What is the prognosis?
  (4) What is the treatment?

X. Define Entero-Colitis.
  (a) What are its causes?
  (b) Describe the anatomical lesions.
  (c) Give the symptoms.
  (d) What is the treatment?

Practice of Medicine.

By Dr. Burbank, Wilmington, N. C.

1. What are the pathological changes in chronic dysentery, and what are the symptoms of this disease?
2. What is acute poliomyelitis, symptoms, treatment and pathology?
3. Describe malarial cachexia, and give treatment.
4. What are the causes of gastric ulcer, and what are its symptoms?
5. What are the varieties of bronchitis?
6. What are the physical signs of acute pleurisy?
7. What is cardiac dilatation, and what are the causes of this affection?
8. How is thoracic aneurism recognized?
9. What is acute parenchymatous nephritis, and what are the symptoms?
10. How should erysipelas be treated?

Physiology.

By Dr. T. E. Anderson, Statesville, N. C,

1. Mention three properties of the cell, and explain its function in physical organization.

2. Give structural difference between arteries, veins and capillaries.

3. What digestive changes occur in the large intestine?

4. Relate 1st, The steps in the coagulation of blood; 2nd, What salt is necessary to its coagulation; 3rd, Why does it not coagulate in the living vessels.

5. Name, locate and give the function of each of the varieties of epithelia.

6. Name the motor nerve of the tongue.

7. Give the physiology of the afferent fibers of the fifth nerve.

8. Define secretion, excretion, and give the function of three secretions in the human economy.

9. What is the *corpus luteum*, and how is it significant of pregnancy?

10. Explain the peristaltic movement of the bowels, and what effect does the arrest of blood supply have on it?

Materia Medica.

By Dr. D. T. Tayloe, Washington, N. C.

1. What are the physiological effects of belladonna and its alkaloids? Their dose and preparations?

2. Salicin, salicylic acid and the salicylates. What are these substances, physiological action and medical uses?

3. What are the preparations and doses of arsenic, and what are the medical uses?

4. What are the preparations of aconite, their dose and medical uses?

5. Are the mercurial preparations ever used as diuretics?

6. How do the physiological actions of ether and chloroform compare?

7. What are the physiological actions of opium, and what are the preparations and doses of opium and its alkaloids?

8. What are the symptoms and treatment of chloral poisoning?

9. Give the differential diagnosis between opium poisoning, cerebral apoplexy, alcoholic intoxication and uræmic coma.

10. Give doses of the following: Magnesium sulphate, potassium bi-tartrate, oleum Tiglii and elaterium.

11. What are the medical uses of ergot?

Chemistry.

By Dr. K. P. Battle, Jr., Raleigh.

1. Give an example of a chemical equation and explain its meaning,

2. Give the physical properties of Chlorine, Potassium, Acetate of Lead and Sulphate of Copper.

3. Give the chemical properties of Nitric Acid, Hydrogen Dioxide (Peroxide) and Hydrogen.

4. Name the substances having the following formulæ: H_2S, $As H_3$, $MgOS_4$, $NaCl$, $CaCo_3$, and give the formulæ for Sulphide of Iron, Iodide of Potassium, Calomel, Glucose and Chloride of Zinc.

5. Give some of the peculiarities which distinguish the organic compounds from the inorganic.

6. What is an Alkaloid? Name as many of those used in medicine as you can.

7. Describe two methods of testing urine for Albumen.

8. From a chemical point of view what are the following: Ptomaines, Caustic Potash, Creosote.

9. How would you disinfect the bowel discharges of Typhoid Fever?

Surgery.

By Dr. J. M. Baker, Tarboro, N. C.

I. Define (a) septic infection, (b) septic intoxication, (c) erysipelas, (d) osteomyelitis and (e) aphasia.

II. What are the symptoms and treatment of fracture of neck of femur?

III. Give the symptoms of (a) cerebral concussion, (b) cerebral compression, (c) shock, (d) concealed hemorrhage, and (e) aneurism.

IV. What is the pathology of (a) acute abscess, (b) phlebitis, and (c) lymphadenitis.

V. What is the treatment of (a) talipes equinus, (b) chronic abscess, (c) internal hemorrhoids, (d) peritonitis, and (e) ingrowing toe nail.

VI. Give etiology of (a) inflammation, (b) gangrene, (c) anthrax, (d) caries, (e) synovitis.

VII. Give the diagnosis of (b) conjunctivitis, (c) cystitis, (d) stricture of urethra and (e) cerebral embolism.

VIII. Discuss the clinical aspect of (a) appendicitis, and (b) penetrating wounds of abdomen with injury of viscera.

BOOK REVIEWS.

An American Text-Book of Genito-Urinary Diseases, Syphilis and Diseases of the Skin. Edited by L. Bolton Bangs, M. D., Consulting Surgeon to St. Luke's Hospital and the City Hospital, New York, and to the Methodist Episcopal Hospital, Brooklyn, &c., and W. A. Hardaway, A. M., M. D., Professor of the Diseases of the Skin and Syphilis in the Missouri Medical College, St. Louis. &c. Illustrated with 300 Engravings, and 26 Full-page Colored Plates. Philadelphia: W. B. Saunders, 925 Walnut St. 1898.

Saunders' American Text-Books makes a complete and grand library within themselves. Fortunate are they who possess them. As each volume arrives the interest grows, and we can but congratulate the editors and publishers on the fact that the volumes seem to increase in worth as each one comes to our office. The contributors to this volume are among the leading lights in the medical profession of America, and their writings and teachings carry with them much weight, and are a safe guide to follow. There are no set of books more to be desired by the practitioner and the student than Saunders' American Text-Books. Among the contributors are the names of Allen, Atkinson, Bangs, Bolton, Bosher, Bowen, Cantrell, Corlett, Curtis, Cutter, Dyer, Fenger, Fordyce, Fuller, Greene, Grindon, Hammond, Hardaway, Hartzell, Heitman, Howe, Jackson, Jacobi, Johnston, Montgomery, Taylor, White, Wood, and many others of equal ability and authority. The book will be found to be original, yet homogeneous and fully representative of the several departments with which it is concerned. The text has been amply illustrated with typical portraits, both in color and in black.

The book opens with a consideration of the urine in Surgical Diseases of the Urinary Tract. Forty-four pages is devoted to this Section by Dr. Paul Thorndike. There is no chapter in the work that deserves more consideration. The next chapter is devoted to Diseases of the Penis by Dr. B. Farquhar Curtis. This chapter also deserves careful study. Diseases of the male Urethra, by G. Frank Lydston, M. D., is one of the most lengthy and valuable articles found in the book. The treatment of Urethritis is exceptionably good. Diseases of the Prostate by J. William White and Alfred C. Wood comes next and deserves careful study. Another chapter of no less merit is the one devoted to Diseases of the Bladder by Edward Martin and A. E. Taylor. There are many other chapters of equal importance that should be considered, but space will not allow it. Under each chapter are found handsome cuts and Illustrations. We would not fail to mention the most excellent manner in which probably the most important disease, Syphilis, is considered in its general manifestations. The book contains 1229 pages, and from every standpoint we know of no work equal to it. It gives us pleasure to recommend it to our readers.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Neurology, Surgery, Gynæcology, Obstetricts, Opthalmology, Laryngology, Pharyngology, Rhinology, Otology, and Dermatology, and Specially Prepared Articles on Treatment. By Professors and Lecturers in the Leading Medical Colleges of the United States, Germany, Austria, France, Great Britain and Canada. Edited by JUDSON DALAND, M. D., (University of Pennsylvania), Philadelphia; Instructor in Clinical Medicine and Lecturer on Physical Diagnosis in the University of Pennsylvania, etc.: Fellow of the College of Physicians of Philadelphia. J. MITCHELL BRUCE, M. D., F. R. C. P., London, England, Physician to, and Lecturer, on the Principles and Practice of Medicine at the Charing Cross Hospital; and DAVID W. FINLAY, M. D., F. R. C. P., Aberdeen, Scotland, Professor of Practice of Medicine in the University of Aberdeen: Physician to, and Lecturer on, Clinical Medicine in the Aberdeen Royal Infirmary, etc. Volume I. Eighth Series. 1898. Philadelphia: J. B. Lippincott Company. 1898.

This book comes to us containing valuable articles that have characterized the other volumes of this publication. In selecting the subject matter the editors have judiciously selected that which will prove of the most practical value to the busy practitioner in his routine work. This volume is full of many valuable and interesting articles, all of which are of a very high order. There are probably no set of books more widely known or more highly appreciated by the professional public than the clinics. We always give them a warm welcome and heartily recommend them to our readers.

THE DISEASES OF THE STOMACH. By WILLIAM W. VAN VALZAH, A. M., M. D., Professor of General Medicine and Diseases of the Digestive System in the New York Polyclinic Medical School and Hospital, and J. DOUGLAS NISBET, A. B., M. D. Philadelphia: W. B. Saunders, 925 Walnut St. 1898.

This work contains six hundred and seventy-four pages, and is an eminently practical one. It constitutes a valuable contribution to scientific medicine. Chief attention has been directed to the most improved methods of diagnosis and treatment. In reviewing the work we notice that space has not been wasted by an extended discourse on anatomy nor by a theoretical discussion of general pathology, but beginning with a classificatory introduction, a chapter is devoted to diagnosis and diagnostic methods, and one to general medication and treatment. After this the various diseases are taken up in order and treated in a logical way, beginning with etiology, and passing through the phases of pathology, clinical description, diagnosis, differential diagnosis, prognosis and treatment.

The methods of examination given and the apparatus recommended, while sufficient for special advanced stomach-work, are not too elaborate and complicated for the general practitioner. Indeed, the needs of the practicing physician are kept constantly in mind throughout the book.

In marked contrast to other books on the stomach the subject of treatment is presented in such a way as to leave no doubt in the reader's mind what course to pursue in a given case. Although numerous authorities are cited, the authors are perfectly clear as to what their experience has found most useful, and they do not hesitate to recommend a definite course of procedure under definite conditions.

There is an unusually complete and detailed presentation of the important subject of dietetics. The nutritive value of the various foods is fully discussed together with their special application in diseased conditions of the stomach. The diet lists for each disease are extremely full, and are so arranged that selections can readily be made to suit individual cases.

Finally, I believe this book will prove the most practical treatise on the subject yet published, providing especially for the needs of the student and the general practitioner.

A TEXT-BOOK OF GYNECOLOGY by JAMES C. WOOD, A. M., M. D., Professor of Gynecology in the Cleveland Homeopathic Medical College: Formerly Professor of Obstetrics and the Diseases of Women and Children in the University of Michigan, Homeopathic Department, etc. Second Edition, Revised and Enlarged, with 295 Illustrations in Text, and Thirty-seven Colored and Half-Toned Plates. Philadelphia, Boericke & Tafel, 1898.

This is a very handsome volume containing nearly 1,000 pages. That the second edition of so large a volume should have been demanded in less than four years after the first is sufficient evidence that the work is one which has found favor with the profession. This is certainly the Homeopathic work on Gynecology. In this, the second edition has been thoroughly revised. To a greater or less extent every chapter and almost every page has been altered. Some material has been expunged and much has been added. The chapters on "Electricity," Antiseptics and Asepsis, Pelvic Abscess, Malignant Diseases of the Uterus and injuries resulting from childbirth have practically been rewritten. A chapter devoted to those obstetrical operations which the abdominal surgeon is so often called upon to perform has been introduced. The Volume, as a whole, maintains a high standard of excellence, both as regards the matter, the illustrations, and the general make up. It can but take a high rank in Gynecological Literature. Price, cloth, $7.00 Net. By mail, $7.50. Half Morocco $8.00 Net. By mail $8.50.

THE GENESIS AND DISSOLUTION OF THE FACULTY OF SPEECH. A Clinical and Psychological Study of Aphasia. By DR. JOSEPH COLLINS. Beautifully printed on thick, wide margined paper, bound in maroon cloth, 8vo, $3.50 net. The Macmillan Company, 66 Fifth Avenue, New York.

This treatise on Aphasia is the most comprehensive and exhaustive presentation of the subject in the English language. A glance at the table of contents shows that the author has given himself wider scope than the mere discussion of cases of aphasia. The genesis and the function of speech are considered fully before the phenomena attending its dissolution are discussed. The introductory pages make plain the author's point of view and indicate the standpoint from which the subject is to be attacked and handled. The history of the subject is unfolded concisely and lucidly. The discussion of general expressive reactions; mimic reactions; articulate speech; writing, the genesis of percepts, etc., will naturally interest the psychologist more than the physician, but they will appeal also to the latter. In the chapter on the Conception of Aphasia the author reveals how completely he has thrown off the shackles that have bound the subject of aphasia to antequated theories and to positions no longer tenable. The reign of diagrams is successfully impugned. The contentions of Exner, and of Charcot, and their followers regarding the existence of a special graphic motor centre is attacked and the fallaciousness of their arguments exposed. The site of revival of words in silent thought, the psychical phenomena of silent reading, etc., are thoroughly discussed. The phenomena attending the dissolution of speech are taken up and discussed and analyzed from two points of view: the psychological and the clinical. The etiology, the morbid anatomy, and the pathology of aphasia are fully inquired into. The treatment is discussed from the standpoint of the physician and of the pedagogue. A chapter on the medicolegal aspects of aphasia adds value and interest to the book.

The volume will commend itself not only to physicians and psychologists, but to advanced pedagogues and students of language.

LITERARY NOTES.

Lippincott's Magazine for May 1898.—The complete novel in the May issue of Lippincott's is "The Uncalled," by the colored poet, Paul Laurence Dunbar. Though understood to be his first essay in extended fiction, it is an extremely strong and thoroughly readable story. The scene is laid mainly in a small Ohio town; the hero is a youth of the humblest origin, who is forced into the ministry and works his way out of it.

"No. 87.617 Colt," by George Brydges Rodney, recounts the experiences of a small party of Americans in Cuba during a former insurrection. Theodore Gallagher describes one phase of a very wild Wester · town in "The Election at Cayote." Both are stirring tales.

"Woman's Work and Wages" are discussed by Eleanor Whiting, who claims that matrimony is the most appropriate and profitable business for women in general, and that they had better not attempt direct wage earning. This highly conservative position she defends by an array of facts and arguments.

Dr. Charles C. Abbott has a brief paper on "Blunders in Bird-Nesting," meaning those of the birds. James Weir, Jr., writes on "The Faculty of Computing in Animals," and William S. Walsh inquires, "Do Animals Drink?" He replies that they do, on occasion, and become intoxicated like their betters.

The ways of "The Indian Afoot," and his extraordinary abilities as a pedestrian, are set forth by William Trowbridge Larned. By "The Sacred Flower" Marvin Dana means the rose. People-in-Law form the subject of a little essay by Alan Cameron.

Frank G. Carpenter deals with "The Book-Loves of Statesmen"—*i. e.*, some of them. "The Literature of Japan" is briefly discussed by Joslyn Z. Smith.

The poetry of the number is by Florence Radcliffe, Grace F. Pennypacker, and Lee Fairchild.

The sketches by Paul Bourget which have attracted attention as presented in translation in The Living Age, will be followed by one or two delightful groups of sketches by that other master of style, Pierre Loti. These are specially interesting just now because they relate to Spanish life and character.

In its issue for May 28, The Living Age will begin the publication of the most striking English serial of the year, "John Splendid," by Neil Munro, now in course of publication in Blackwood's Magazine. The Living Age has bought the right to print this story from the owners of the American copyright, and will continue its publication in weekly instalments until it is completed.

The May Forum.—The May Forum has the followsng strong table of contents, viz.: "Germany and China," by His Excellency M. vonBrandt, formerly German Ambassador to China; "The Fifty Million Appropriation and its Lessons," by Hon. Hilary A. Herbert, Ex-Secretary of the Navy; "Independence of the Military System," by Brig. Gen. G. Norman Lieber, Judge-Advocate-General, United States War Department; "The Trans-Siberian Railway: Its New Terminus in China," by Clarence Cary; "The Utility of Music," by Henry T. Finck; "The Physical Factor in Public-School Education," by Everett C. Willard, Superintendent of Schools, Stamford, Conn.; "The Primary-Education Fetich," by Prof. John Dewey, Head of the Department of Philosodhy in the University of Chicago; "Canada's Relations with the United States, and Her Influence in Imperial Councils," by Dr. John G. Bourinot, C. M. G., Clerk of the House of Commons of Canada; "Weather Forecasting," by Prof. Willis L. Moore, Chief of the United States Weather Bureau; "Central America: Its Resources and Commerce," (second paper), by William Eleroy Curtis; "Journalism as a Profession," by Walter Avenel; "The Evolution of the German Drama," by Dr. Ernst von Wildenbruch.

The Review of Reviews makes a striking assemblage of cartoons illustrating the war question. The reproductions of Spanish, Cuban and Mexican cartoons are especially interesting. The pages of the May Review devoted to this department will have a unique historical significance in years to come.

The Tennessee State Medical Society.

The sixty-fifth annual meeting of the Tennessee State Medical Society was held at Jackson, Tenn., April 14-15, 1898.

The first paper read was on the "Hygiene and Medical Supervision of Pregnancy," by Dr. J. H. Preston, of Humbolt. The essayist believes it to be the duty of the husband to early acquaint his physician that his wife is enciente and place her under his supervision. Under normal conditions there might be little or nothing for the physician to do but to give instructions regarding general hygienic regulations. But under our modern social regime, which is so full of dissipations, he will sometimes have his hands full in getting instructions carried out. One of the greatest difficulties is in the matter of dress. A great many women are so loth to give up their social relations that they will persistently dress in a manner that is highly deleterious. Some will lace themselves in an attempt to hide their condition, as though their prospective maternity were a crime or disgrace. Again some pregnant women immure themselves from all outdoor exercise and fresh air and thus become victims of lassitude, rendering themselves unfit for the ordeal toward which they are tending. The prospective mother should have loose but comfortable fitting garments of medium weight, suspended mostly or entirely from the shoulders, without corset, unless it be one especially provided for the pregnant condition. Many complications arise during pregnancy and at time of delivery because of improper dress, which may also have its influence in faulty development of the fetus. We should have a happy, cheerful woman during pregnancy to expect a happy uncomplicated delivery of a healthy baby, and a safe passage through the puerperal state. Maternal impressions affect the exterior of the fetus as well as its mental organization. The wise physician should aim to direct the mind of his patient as well as her physical welfare. Almost any disease may supervene in the course of gestation, thus engendering a grave complication, or pregnancy may occur, and often in spite of some chronic or inherited disease. Pregnancy may be the exciting cause which arouses some latent disease or predisposition to disease into activity. Besides there are a number of disturbances that might be termed physiological penomena, such as the vomiting of pregnancy, neuralgia of the teeth independent of caries, cough and dyspnœa. One of the most fatal diseases in the pregnant state is pneumonia, which can almost always be avoided by proper hygienic care.

Diseases of the urinary system call for intervention perhaps oftener than any other class of troubles. Irritability of the bladder and dysuria occur often in first pregnancies, while incontinence is met with more frequently in later pregnancies. Retention of urine in pregnancy is sometimes a very grave accident. It may be attributed to reflex contraction of the neck of the bladder, when met with early in pregnancy, but it is most frequently met with as a symptom of retroversion at about the fourth month, or later as a result of cystocele. But the renal function requires the most care in the pregnant woman. Four forms of renal disease may be met with in pregnant women, viz.: Acute and chronic parenchymatous, and intertitial nephritis, and a special form peculiar to pregnancy, pregnancy kidney or pregnancy nephritis. The last begins and ends with the pregnant state. The symptoms are oedema and albuminuria. The course is usually favorable, but eclampsia may supervene with sudden increase of albumin and dropsy, with lessened excretion of urine. Acute nephritis may cause eclampsia, but it rarely occurs in the chronic form. For grave albuminuria, the absolute milk diet is the best treatment. External palpatation of the abdomen after fetal viability may give some information regarding the position of the fetus or multiple pregnancy. Every woman in her first pregnancy, or who has had special difficulty in a previous parturition should be examined by external and internal pelvimetry about the 7th or 8th month. If the labor promises to be long, painful or difficult from obstruction of any kind, the obstetrician ought to know it in advance that he may elect at a proper time before parturition whether to choose the induction of a premature labor, to depend upon the use of forceps, or to resort to podalic version, symphysectomy or a Caesarean section and thus avoid craniotomy.

Often we are asked if there is no means of making child-bearing easier. The essayist had attended women who had used preparations advertised for this purpose, but had not seen any benefit.

The paper was discussed by Dr. J. S. Nowlin, Shelbyville; Dr. T. J. Happel, Trenton; Dr. Forshay, Dr. J. F. Griffin, Cronamille; and the discussion was closed by Dr. Preston.

"Two Cases Treated by Sodium Infusion," by Dr. W. F. Rochelle, Jackson.

In the first case there was a temperature of 104-106 deg., with heart failure, loss of consciousness and other symptoms of impending death. A quart of saline infusion was injected into the veins. The pulse soon became full and quiet, dropping from 190 to 136 within half an hour. In a few hours consciousness returned and the patient recovered in the course of two weeks.

The second case was that of a patient who had suffered about two years with diabetes. The symptoms of diabetic coma supervened. Hereupon saline solution was injected into the cellular tissue, with apparently no benefit. The same solution was then introduced into the veins. The pulse, which had been weak and compressible, became full and strong. The coma disappeared. This continued three or four hours, when the injection was repeated with the same good result. The injections were continued at intervals of four to six hours for about two days, when the effect gradually failed, the patient grew weaker and died.

The subject was discussed by Dr. Deering J. Roberts, Nashville; Dr. J. B. Cowan, of Tullahoma; Dr. Miller, Dr. J. L. Crook, of Jackson; Dr. T. J. Happel, of Trenton; Dr. J. A. Crook, of Jackson, and the discussion was closed by the essayist.

"The Pathology and Differential Diagnosis of Intestinal Obstruction," by Dr. Richard Douglass, of Nashville, was discussed by Dr. Deering J. Roberts, of Nashville, Dr. W. K. Sheddan, of Williamsport, Dr. W. D. Haggard, Jr., of Nashville, and by Dr. Doiglass, in closing.

"Fever, Just Fever," by Dr. D. J. Roberts, of Nashville, was a description of the peculiar continued fever, found especially in the South, which is neither malaria nor typhoid fever,although resembling somewhat these diseases. The paper was discussed by Dr. J. A. Crook, of Jackson, Dr. Witherspoon, of Nashville, Dr. J. L. Crook, of Jackson, Dr. T. J. Happel, of Trenton, Dr. J. B. Cowan, of Tullahoma, Dr. J. S. Nowlin, of Shelbyville, Dr. W. F. Clary, of Bellbuckle, Dr. W. K. Sheddan, of Williamsport, Dr. J. D. Hopper, Dr. J. F. Griffin, of Cronamville, and the discussion was closed by Dr. Roberts.

"A Plea for the Conservative Management of Uterine Inflammations and displacements," by Dr. I. A. McSwain, Paris.

Tubercular and syphilitic infection, rheumatic and gouty conditions, general debility and anaemia, may be predisposing causes of diseases and displacements of the uterus. The displaced womb may be only a part of a vast hernia of the pelvic viscera making a descent in various degrees through the pelvic outlet. Dilatation of the stomach, hepatic and splenic enlargements, the growth of tumors, or constipation, may contribute to these troubles. The demands of modern society, dress, lacing, the uncomfortable load of skirts fastened around the waist, are a fruitful source of uterine disorders. But by far the greater number of these cases owe their origin to negligence or ignorance during parturition or to expousure and bad treatment succeeding labors and abortions, non-observance by the attendant of the rules of antiseptic midwifery, failure to recognize and immediately repair injuries of the birth canal or perineum, and gonorrhoea. Subinvolution is more often an effect than a cause. Frequently the puerperal woman gets up too soon after delivery and assumes her household duties, thus exposing her womb to many sources of infection. A flexed womb or one retroverted is in no position for drainage, and by retention of secretions provokes or perpetuates an inflammatory process.

By an examination we should ascertain the presence or absence of inflammatory disorders, the condition of the perineum, the tonicity of the vaginal walls, whether there has previously existed pelvic inflammation, and if so the nature and extent of the exudates or adhesions, the presence or absence of pregnancy, the size of the uterus, the length of the cervex, the condition of the ovaries, tubes and ligaments, whether there be any displacement of the organ and if so, the direction and extent, also whether the flexion, prolapse or version be due in whole or in part to the presence of tumors or enlargement of any other abdominal organ or is accompanied with prolapse or displacement of the bladder, vagina, rectum or kidney, also whether there be fistulous openings, cervical rents or abrasions, ulcers, excoriations or cancer.

In the treatment of malpositions and inflammatory processes of the uterus we should reduce existing inflammation and overcome if possible the resulting evils and restore the womb to its normal position in the pelvic cavity. The first essential is rest. The patient should be put to bed and kept quiet in both body and mind. This is especially required in all acute cases. The second essential is cleanliness, which implies antiseptic precautions on the part of the physician and nurse, bed and sursoundings. The disease must then be treated much as you would any sore, that is cleanse it. If the os is not sufficiently patulous it should be dilated with a steel dilator and, under an anesthetic, every particle of foreign substance should be removed with a curette. Then thoroughly irrigate the uterine cavity with sterile water containing a proper percentage of one of the non-toxic antiseptics. Bichloride of mercury or carbolic acid, if used at all, should be greatly diluted. Lysol, creolin, permanganate of potash, hydrogen dioxide in proper solutions, or the compound tincture of iodine, one ounce to the quart of water, are all admirable preparations for this purpose and are free from danger.

Not every case will require the curette, but there are few if any cases of endometritis that do not require thorough irrigation. Having cleansed the organ, local applications are in order. Perhaps one of the best combinations is equal parts of compound tincture of iodine, glycerine and witch hazel, or carbolic acid and tincture of iodine. Among the newer preparations, europhen and aristol suspended in albolene have a soothing and antiseptic effect. There may be cases in which fuming nitric acid of chloride of zinc is needed, but such cases are few, and milder preparations should have preference. The third important step is drainage, which may be accomplished by inserting a drainage tube or a strip of gauze. An important step in securing drainage is to strengthen the canal of the uterus. To this end all malpositions should be corrected. This is best accomplished by the use of tampons of prepared wool, which should be saturated with a solution of boracic acid in glycerine and ichthyol and inserted under the fundus, after having raised it from its abnormal position. The woman should then be placed in bed and not disturbed for 36 or 48 hours, when the wool should be removed, the vagina and uterus again irrigated and the packing replaced with fresh material. Persistence in this course will overcome the ordinary acute cases. The more chronic cases may require in addition, massage, electricity, a repetition of curettage and various constitutional measures. In chronic cases with plastic exudation or where the uterus is large and heavy, depleting measures are indicated. Hot vaginal douches must be used. Tampons of wool saturated with boracic acid and glycerine should be packed in the vagina and allowed to remain 24 hours, followed by hot vaginal irrigations and a renewal of the packing day after day will hasten resolution of exudates, reduce the size of the womb and materially assist in restoring the parts to a normal condition. One of the best laxatives to secure daily evacuation of the bowels in cases of constipation, is equal parts of sulphur, bitartrate of potash and sulphate of magnesia. After having reduced inflammation and its sequelae and having secured absorption of exudates and the loosening up of morbid adhesions, the uterus may be placed in its normal position and retained by means of a well fitting pessary. This does not always cure the misplacement, neither ventro-fixation nor Alexander's operation. In cases where there are rents in the cervix or perineum, repair is indispensable.

The paper was discussed by Dr. T. J. Happel, Trenton, Dr. Richard Douglas, Nashville, and by the essayist in closing.

"Ulcer of the Stomach," by J. T. Altman, M. D., Nashville. Statistics show us that at least 5 per cent. of all autopsies reveal either an open gastric ulcer or the cicatrix of one that has healed. The etiology of ulcer of the stomach is not very clear, but there are three factors which enter into its production, viz.: A local disturbance in the walls of the stomach, whether this be simply nutritional or due to trauma, an embolus or a thrombus; a hyper-acid gastric juice; and a diminished alkalinity of the plasma of the blood. Age, sex, locality, occupation, corrosive poisons and alcohol are predisposing causes. The main diagnostic symptoms are pain, vomiting, tenderness on pressure, and hæmatemesis. It is estimated that about 6 per cent. of all cases result in perforation. This is more frequent and fatal when the ulcer is in the anterior wall of the stomach. The differential diagnosis lies between ulcer and chronic gastritis, gastralgia, hepatic colic and cancer of the stomach. When ulcer is suspected, put the patient to bed, keep him absolutely quiet and withhold all food from the stomach. Allow no food in the stomach for several days. In the meantime resort to rectal alimentation. Put only albuminous food that has been previously converted into peptones, in the stomach at first, so that absorption will take place easily and rapidly, and render the physiological peristalsis and secretion of acid unnecessary. Milk that has been previously peptonized is the ideal food at first. But as this has a bitter taste, it soon becomes repulsive, when we may give fresh milk with lime water, or some other alkali. By the end of the second week we may add egg albumen in the shape of raw eggs. In the third week, soft boiled eggs with well toasted bread soaked in milk. Thirst is relieved by crushed ice. By the fourth week, if there is no pain or vomiting, raw beef steak finely scraped and raw oysters without vinegar is permitted. From this time a gradual return to a light mixed diet is allowed, but care must be taken for a long time not to eat coarse articles.

Next to rest and diet in importance comes lavage. This is of benefit to relieve the associated gastritis, but must be used with caution, taking care never to over-distend the stomach, for by so doing we separate the edges of the ulcer, the granulated tissue is broken down and cicatrization is prevented. Also, there is danger of inducing hemorrhage or perforation, unless care is taken to introduce a limited amount, and see that it is all carried out. We scarcely ever see a case in which opium is not indicated at some time either to control pain or some complication. The diminished alkalinity of the blood and the excessive acid in the stomach call for the administration of alkalies. Bicarbonate of soda in twenty grain doses before taking food or when in pain, acts admirably. Subnitrate of bismuth in half drachm doses also serves a good purpose. Carlabad salt fulfills the same indications and at the same time keeps the bowels open.

When hemorrhage occurs the patient should be placed in the recumbent position with the head low. Give morphia and atropia hypodermatically to quiet peristalsis, ergotin to contract the arterioles. Apply an ice bag to the epigastrium. In severe cases apply a ligature around the leg and arm. If collapse is marked, inject saline solution into the veins. Perforation demands immediate operation.

As soon as cicatrization is fairly established, the existing anæmia should be combatted by the milder preparations of iron. Three months are usually required for complete cicatrization; even then relapses may occur.

The subject was discussed by Dr. J. B. Cowan, Tullahoma, Dr. J. A. Witherspoon, Nashville, Dr. Savage, Nashville, and the discussion was closed by Dr. Altman.

Puerperal Mastitis, by Dr. C. N. Sebastian, of Martin. This was discussed by Dr. T. J. Happel, Trenton, Dr. J. B. Murfree, Murfreesboro, Dr. J. B. Cowan, Tullahoma, Dr. J. A. Witherspoon, Nashville, Dr. D. J. Roberts, Nashville, Dr. J. S. Cain, Nashville, Dr. Richard Douglas, Nashville.

"Observations in Electro-therapy," by Dr. G. P. Edwards, Nashville, was discussed by Dr. Cross, Dr. Gillespie, Dr. Douglas, Dr. Griffin, and by Dr. Edwards in closing.

"Transfusion," by Dr. S. R. Miller, Knoxville. The essayist believed intravenous transfusion the quickest and most accurate. It requires more skill than the other methods and more attention to the details of asepsis than the subcutaneous injection or enema, but is to be preferred where there is immediate demand and the necessary preparation is made. It combats shock best. It is perhaps most useful in very bloody operations, where otherwise the necessary loss of blood would prove fatal before the operation could be completed. The subcutaneous method is slower and requires less preparation and skill than the intravenous method. It does not depend so largely upon asepsis, and should be employed where the intravenous method is not practicable. The introduction of fluid into the peritoneal cavity should be employed only in operations involving that cavity. It is probable that this may prevent to a small degree adhesion of the raw surfaces. Rectal injections are easiest and quickest of application. The essayist prefers this method for the purpose of avoiding rather than to combat shock. It serves best where there is least shock. The general surgeon should not allow himself to become "wedded" to any particular method but should in each instance employ the one best suited to the individual case and its environments.

The subject was discussed by Dr. J. B. Crook, Jackson, Dr. J. S. Cain, Nashville, Dr. D. J. Roberts, Nashville, Dr. Jelks, Memphis, and the discussion was closed by Dr. Miller.

"Illustrative Specimens of Perforative Appendicitis, Carcinoma Uteri, Gall Stones, and Fibroid Tumors of the Uterus," presented by Dr. W. D. Haggard, Jr., Nashville.

The specimens were discussed by Dr. Richard Douglas. Nashville, Dr. T. J. Happel, Trenton. Dr. W. K. Sheddan, Williamsport, Dr. J. B. Cowan, Tullahoma, Dr. J. A. Witherspoon, Nashville, Dr. Jelks, of Memphis, Dr. J. S. Cain, Nashville, Dr. D. J. Roberts, of Nashville, and the discussion was closed by Dr. Haggard.

"Gun Shot Wounds of the Abdomen" was a well rounded paper by Dr. J. B. Murfree, of Murfreesboro. The essayist advised operation (laparotomy) and the repair of the injury done. The subject was discussed by Dr. W. K. Sheddan, Williamsport, Dr. Nealy, of Memphis, Dr. J. B. Cowan, of Tullahoma, Dr. Richard Douglas, of Nashville, and by Dr. Murfree in closing.

"Report of Surgical Cases" by Dr. John L. Jelks, of Memphis. Discussed by Dr. Happel, Dr. Gillespie, Dr. Nealy and the essayist.

"Prevention and Treatment of Injuries to the Parturient Canal," by Dr. J. T. Reddick, an invited guest from Paducah, Kentucky.

The paper dealt only with lacerations of the cervix and lacerations of the pelvic floor. Many of the injuries to the parturient canal may be averted by proper attention before and during labor. The urinary organs and bowels should be placed in a healthy condition before labor. Everything done to put the pregnant woman in a normal healthy condition will, in a measure, prevent lacerations of the cervix and perineal floor. Sedentary and indolent habits, pelvic and perineal irritaions or anything which may impair rhe nutrition of the pelvic floor, renders it irritable, soft and predisposed to rent. Fashionable women who live indoors, lace tight and wear improper dress, are enervated and predisposed to lacerations of the pelvic canal. On the other hand, precipitate labors in strong, muscular women, with violent uterine contractions, especially if there is a medium sized child and a rigid perineum, may rupture the pelvic floor. This may be avoided by complete anesthesia with chloroform. Lacerations may be frequently avoided by supporting the perineum during the second stage of labor, especially if there be a vertex presentation. An overloaded rectum and distended bladder, improper traction in forceps deliveries and the use of ergot may produce lacerations of the pelvic floor. Hence the obstetrician, by personal attention to many little things before and during labor, may prevent injuries to the parturient canal. But lacerations do occur with the best physicians and surgeons, and extremely unfortunate is she who has received such lacerations. and her attendant is unable or too negligent to detect them and give them prompt and competent surgical attention. Lacerations may be often detected by the educated finger, but to be doubly sure that there are no injuries, an ocular demonstration should be made at once. In lacerations of the cervix, immediate operation is either one of election or strict necessity. Immediate operation becomes a necessity if the laceration involves the circular artery and the hemorrhage is alarming. Hemorrhage could be controlled by tampons, but the danger from sepsis would be greater than from an operation. Many cases of laceration of the cervix heal spontaneously, especially if the course of puerperium is aseptic, and for that reason the essayist deems it advisable to postpone the operation when possible.

The most important lesions to the parturient canal, perhaps, are injuries to the pelvic floor. The long train of symptoms which may follow a lacerated perineum, namely, hemorrhage and collapse, infection through an open wound, puerperal septicæmia, a tedious and incomplete convalescence, subinvolution, endometritis, uterine displacements of various kinds and degrees, prolapse of ovaries, tubal disease, rectocele, cystocele, neuralgia, functional derangement of adjacent and remote organs, and innumerable reflex troubles and hysteria. is a living monument to the incompetency of the medical attendant on such cases. About the only contraindication to an immediate operation is exhaustion of the patient from prolonged labor or post partum hemorrhage. Where the laceration is slight and requires but a few stitches, anæsthesia is generally not required as the sensibility of the parts is greatly diminished from the pressure associated with delivery. If the laceration is extensive it is best to administer an anesthetic to enable the physician to operate with care and save the woman unnecessary pain. The essayist entered into a description of the operations for repair of lacerations of the cervix and of the perineum.

The paper was discussed by Dr. G. B. Gillespie, Covington, Dr. J. L. Jelks, of Memphis, Dr. T. K. Powell, Dancyville, and Dr. J. A. Crook, of Jackson.

"A Simple Method of Estimating the Specific Gravity and Hæmoglobin Percentage of Blood" was demonstrated by Dr. William Krauss, of Memphis. The essayist had constructed a pipette graduated in hæmoglobin percentages, and used two fluids, one of 1,000 specific gravity at 60 degrees F. and colored with gentian violet, the other of 1,060 sp. gr. at 60 degrees F. and uncolored, which would float blood up to 110 per cent. hæmoglobin. The specific gravity of the two fluids is sufficiently alike to give uniform variations for temperature and thus eliminates the temperature error without requiring calculation.

The pipette is filled with the violet mixture and introduced to the bottom of the test tube and then allowed to discharge its contents which will rise in the fluid, being lighter, and can be seen by its color to diffuse itself in the clear mixture. As soon as the blood begins to recede from the surface, the additions are interrupted until the proper specific gravity is obtained. The hemoglobin percentage can then be read off from the pipette.

The paper was discussed by Dr. J. B. Cowan, Tullahoma, Dr. Max Goltman, Memphis, and the discussion closed by Dr. Krauss.

"Report of Six Amputations for the Relief of Osteo-Myelitis Following Severe Ulceration of the Leg," by Dr. M. Goltman, Memphis.

Discussed by Dr. J. L. Crook, Jackson, and by the essayist in closing.

Detection of Tubercle Bacilli in Urine.

Dr. T. Law Webb, on April 5, 1898, at the Shropshire Mid-walls Medical Society, read a paper on this subject. (British Medical Journal.) He said tuberculosis of the urinary tract might exist in the cortex or pelvis of the kidney, in the ureters, bladder, seminal vesicles, or prostate gland. The disease might commence by a deposit of tubercle bacilli in these organs from blood already contaminated with the bacilli, or as an extension of the disease in neighboring parts, or as an ascending tuberculosis, such as occurred when tuberculous ulceration crept up the ureters from an infected bladder. In the early stages of a tuberculosis of these parts there might be no ulceration, and therefore no bacilli in the secretion, but ulceration or abscess was an early event in most cases so that bacilli might very frequently be found when the general symptoms had drawn attention to the local condition. Practically therefore the pathologist had to deal with urine suspected to contain tubercle bacilli which might be: (1) apparently clear, and without visible sediment; (2) slightly colored, or opalescent; (3) heavily charged with pus; and (4) or with blood. These characters might alternate, pus and blood appearing for a time, and then disappearing, leaving the urine nearly free. These intervals, when the urine was comparatively clear, afforded the best time for searching for the bacilli. The urine should be allowed to settle for some hours, all but the last three or four ounces poured off, and a small sediment should be obtained with the centrifuge. Cover-glass preparations stained with carbol fuchsin should be examined. The bacilli were almost always in masses (crescent shaped) or occupying the whole of a pus cell or leucocyte. When thick pus had to be examined the difficulties were greatly increased. He had found that in this case Van Ketel's method was a good one. In this one part carbolic acid was added to 20 parts purulent urine, which must then be shaken vigorously for at least five minutes, and allowed to settle in a conical glass. Cover-glass preparations should be made by heat in the usual way, the cover-glass being dipped several times in chloroform (or a mixture of equal parts of alcohol and ether), which rendered it transparent. Staining should be effected with carbol-fuchsin. This method seemed to help by rendering the outlines of the pus cells soft and indistinct, so that they allowed the bacilli to be more easily seen. When blood was present in considerable quantity it was almost useless to search for bacilli, and the examination should be deferred until the urine became clearer. In doubtful but important cases where blood was present in acid urine and there were symptoms pointing to tuberculosis, a great number of cover-glasses must be made from the sediment. These should be stained with anilin water fuchsin for twenty-four hours in an incubator. If the bacilli were present they would not easily escape detection.

Umbilical Hemorrhage.

H. W. Lougee (Massachusetts Medical Journal), says that while hemorrhage from the umbilicus generally after the falling off of the cord, it may occur before or considerably after that event. Contrary to the statements of several it is not confined to ill-nourished infants, nor does it have any connection with jaundice or disease of the liver. It is probable that the blood comes from the umbilical arteries and depends upon the persistence of the foramen ovale, the arteries once more becoming pervious under the pressure of the fœtal form of circulation; this would also explain the fœtal character of the blood and its slight coagulability. Modern treatment has usually been unsatisfactory, and the author thinks that the older method by styptics and compression is the better. He describes a case in a child eight days old. in which he first ordered the application of equal parts of kino and alum, with compression by a folded cloth; this treatment was efficient for twenty-four hours, when the bleeding recurred; he then carefully cleaned the blood away, and made four small balls of charpie, the smallest of the size of a pea, which he saturated with liquor ferri sesqui-chloridi; the smallest he then applied directly over the navel and the others successively according to their size, binding the whole in place by strips of adhesive plaster, and above this a roller bandage. No more bleeding occurred, and at the end of a week the dressing was removed; but as cicatrization was not complete, a similar dressing was applied for a second week, at the end of which time the umbilicus was entirely healed.

Calomel in Combination with Chlorides or Acids.

Dr. Jovane (Pediatrics) made the following report at the Eighth Congress of the Italian Society. He has observed that calomel, when brought in contact with chlorides, mineral or organic acids, in the test-tube does not form corrosive sublimate. This was also determined in a dog, in whom a gastric fistula had been established. The author, still further, has administered calomel to sixty children, followed by lemonade made from muriatic, citric or tartaric acid and by strongly salted bouillon, milk, orange juice, and has not seen the slightest disagreeable effects follow. Neither were any anatomical changes whatever found in the autopsies of experimental dogs, and those of two children, who had all been subjected to the above experiments, and had died later from intercurrent diseases.

Diet in the Febrile Diseases of Children.

The proper regulation of the diet is as important in the febrile diseases of children as the medicinal treatment. As it is more difficult to feed young children in health than to feed adults, so in disease the question of diet is not only a more difficult one, but is also of greater importance. The infant often has a very slight hold upon life, and even when the disease does not seem serious it sometimes requires but a trifle to loosen it. When the child's life hangs in the balance failure of the stomach to do its proper work may prove fatal. In any case it adds to the seriousness of the illness and delays recovery.

In the feeding of sick children three errors are common—too frequent feeding and the administration of too much and of too rich food. The digestive powers are diminished by fever, even more in children than in adults. Less food, therefore, should be given in each twenty-four hours than in health, and it should be more diluted. It is a serious error to give milk to a sick child every few minutes. The child frequently takes it eagerly. not because it is hungry but to allay thirst. It should not be forgotten that milk, while liquid outside the body, beomes a solid in the stomach, and is a tax upon the digestive power.

When milk is given at such frequent intervals it often happens, when the critical period arrives, that the overburdened stomach refuses to do its work. Complete loss of appetite, and perhaps vomiting, indigestion, and gastro-enteritis, are added as a complication to the original disease. Simple loss of appetite, by depriving the child of the nourishment it so urgently needs, may, in serious cases, prove a fatal complication. A careful record should be kept of the exact amount of food taken and retained during each twenty-four hours. The impressions of a nurse or mother are frequently so unreliable that the medical attendant can in no other way form a correct opinion as to the amount of nourishment his patient is getting. The importance of thus keeping a record of the quantity of food cannot be too strongly insisted upon.

As to the food to be selected in the acute fevers of children, the chief reliance may in most cases be placed upon milk, diluted according to the age of the child and peptonised if necessary. Next to milk in importance are beef broth, mutton broth, beef juice, wine whey, and oatmeal or barley gruel. They should be given in amounts suitable to the age of the child, and, except when indicated for short intervals, the frequency of their administration should rarely be less than two hours.

The Causation of Chloroform Syncope.

Leonard Hill (British Medical Journal), combats the doctrine of the Hyderabad Commission and of Lawrie, that chloroform kills by paralyzing the respiratory centre, and reaches the gollowing conclusions:

1. Chloroform produces a primary failure of the circulating mechanism and a secondary failure of the respiratory centre. The respiratory centre fails to act, not only because it is damaged by the drug, but because of the anemia of the spinal bulb produced by the fall of arteril tension. This is proved by the fact that the action of the respiratory centre can be renewed by raising the arterial tension. The depth of anesthesia depends, as does the paralysis of the respiratory centre, on the primary fall of the arterial tension.

2. Chloroform, more than any other known agent, rapidly abolishes the vascular mechanisms which compensate for the hydrostatic effect of gravity.

3. Chloroform abolishes these mechanisms by paralyzing the splanchnic vasomotor tone and by weakening the action of the respiratory pump. When these mechanisms are totally abolished the circulation is impossible, if the subject be in a feet-down position.

4. Chloroform also produces paralytic dilatation of the heart. It acts directly, like amyl-nitrate, on the musculature of the whole vascular system.

5. There are two forms of chloroform syncope: (a) During primary anesthetizations. The patient struggles, holds his breath, raises the intra-thoracic pressure, congests his venous system, lowers his arterial tension, and finally, takes deep inspirations and surcharges his lungs with chloroform. In the first stages the left heart becomes impoverished: in the second stage it is suddenly filled with blood. This is drawn from the lungs and is full of chloroform. The chloroform passes into the coronary arteries and the heart is thrown into paralytic dilatation, Respiration and the pulse either cease simultaneously or the pulse before respiration. (b) During prolonged anesthetization this arises from gradually giving chloroform to too great an extent. The arterial pressure falls lower and lower, and, secondarily, the respiration ceases because of the anemia of the spinal bulb. The heart is not, in this case, paralyzed by chloroform, because the dru

is taken in gradually by the shallow respirations and distributed slowly by the feeble circulation.

6. Artificial respiration and the assumption of the horizontal position, if applied in time, will always resuscitate a patient from the second form of syncope.

7. Artificial respitation, established with the patient in the horizontal position, is also the treatment indicated in the first form of syncope; the heart should be rhythmically compressed by squeezing the thorax. If this does not quickly renew the pulse, the patient should be put into the vertical feet-down posture. The dilated right heart is thereby easily and completely emptied of blood. Artificial respiration is maintained during this maneuvre and the patient is brought once more into the horizontal posture. By rhythmic compression of the chest an efficient circulation is maintained through the coronary arterie by first emptying and then filling the heart, a fresh supply of blood is brought into the organ. If this does not prove successful on the first trial it can be repeated.

8. Inversion—that is, placing the subject in the feet up position—or compression of the abdomen will increase the paralytic dilatation of the heart. In this kind of syncope both these forms of treatment are worse than useless.

9. In the condition of shock or emotional fear the compensatory mechanism for the effect of gravity is almost abolished and chloroform may easily be the last straw to completely paralyze the circulation.

10. Vagus inhibition of the heart is of no importance as an agent in the production of chloroform syncope.

11. Ether is, in every respect, a far safer anesthetic than chloroform. According to Ringer's experiments on the heart, ether is fifty times less dangerous than chloroform.

12. With the practical conclusion of the Hyderabad Commission, that the chloroform-inhaler should be removed during the struggling of the patient or when the respiration is of irregular depth, he absolutely agrees, but he considers their interpretation of their own experiments and tracings concerning the origin of chloroform syncope to be mistaken.

Not only the work of all physiologists, but also the tracings of the commission, when rightly interpreted prove that paralysis of the circulatory mechanism and not of the respiratory centre, is to be dreaded by the anesthetist.

The Antiseptic Value of Iodoform.

The results obtained by Lomry, in a series of experiments conducted upon animals and by bacteriological cultures in natural fluids, are in marked contrast to those obtained of late by bacteriologists, and tend to prove that the clinical observations of the value of iodoform as an antiseptic is fully justified, while the experimental bacteriological investigations which hrve been previously made were of little value.

The results which he obtained are the following:

1. When wounds in dogs or rabbits which have been previously infected with staphylococcus or streptococcus pyogenes are treated, the one with iodoform and the other without, it will be seen that the iodoform exerts a beneficial influence upon the wound. It has greater vitality and a better appearance. The leucocytes are at least as numerous and more active, the amount of secretion is decreased, and cicatrization is rapid.

2. Credit cannot be given to the bacteriologists who declare that iodoform has no antiseptic action. They have attained their results by the use of culture media which did not dissolve the iodoform. When natural media are used for the tests *in vitro* an active antiseptic action is seen.

3. Iodoform decreases the virulence of the staphylococcus and streptococcus pyogenes.

4. The iodoform neutralizes or counteracts the microbic toxins, but this neutralization or counteraction is only partial.

5. The iodoform does not hinder, even to a slight extent, the ameboid movement and phagocytic action of the white corpuscles; but, on the other hand, stimulates their ameboid movement.

Of Interest to Military and Naval Surgeons.

Whether or not the military and naval forces of the Government at present under arms are to see much active service, or to participate in many pitched battles, certain it is that many minor casualties will occur, and that the surgeons will be called upon to treat a considerable number of minor wounds, such as burns, abrasions, small cuts, etc.; in this connection it would seem as if the new local anæsthetic, orthoform, should prove of peculiar service. For the benefit of the medical officers in charge of large bodies of men, we will state that orthoform is a fine white powder entirely non-poisonous, possessing the unique power of producing complete and continuous anæsthesia when applied to denuded surfaces or whenever it can be brought in direct contact with sensitive nerve endings. As the drug is also a distinct antiseptic it needs no sterilization. It can be applied pure as a powder or in 10 to 20 per cent. ointment with any desired base.

Mesrs. Victor Koechl & Co., 122 Hudson St., New York, the American agents, will be glad to send literature and samples to any medical officer requesting same.

The Clinical Forms of Diphtheria.

In a recent issue of the New York Post-Graduate, Dr. Caille says: Diphtheria runs its course as a mild case, a septic case, or a stenosis case but we can never determine at the onset whether a case will progress favorably or terminate fatally. Its characteristics are the formation of a membrane, the presence of fever, indurated lymph nodes in the neck, sepsis, laryngeal stenosis. In membranous rhinitis, and membranous laryngitis, there is usually no fever.

The following clinical varieties will be met with in practice:

1. So-called fallicular tonsillitis.
2. Primary diphtheria of tonsils and pharynx.
3. Primary naso-pharyngeal diphtheria.
4. Primary nassal diphtheria; also called membranous rhinitis or diphtheria larvata.
5. Primary laryngeal diphtheria (membranous croup.)
6. Diphtheria without membranes (simulating simple angina.)
7. Secondary diphtheria, following measles, scarlet fever, pertusses, etc.

Diphtheria without membrane may lead to annoying controversy. A girl of five years affected with a chronic nervous trouble, for which she was under treatment at the Post-Graduate Hospital, became acutely ill, with high temperature, vomiting and mild cerebral symptoms. The author saw her, in consultation, on the third day of her illness, and found her mouth and throat a dusky brown red, bleeding to the touch, temperature 103 degrees, lymph nodes swollen, no false membrane anywhere. A culture-test made at the Post-Graduate laboratory and the Health Board laboratory, proved negative. On the day following a second culture-test showed virulent Klebs-Loeffler bacilli.

Diphtheria which simulates a simple or scarlatinal angina, belongs to this group. Diphtheria in the anterior nares give very few symptoms: A running nose, excoriation at nostrils, snuffles, no fever, is about all. This may go on for weeks, when an extension into the naso-pharynx or larynx is manifest by other additional or subjective symptoms. The Germans calls this form diphtheria larvata, and in all such cases a culture will show the true state of affairs. Ordinary thrush [oidium albicans], can hardly be mistaken for diphtheria, but diphtheria of the mouth may be taken for stomatitis, and patches of leptothrix are frequently called diphtheria, particularly when associated with tonsillar inflammation, painful and swollen lymph nodes and fever.

Leptothrix patches will be found protruding from the crypts or margins of the tonsils, and are very difficult to scrape away, they also resist the action of various caustics to a remarkable degree, and sometimes make repeated scrapings and cauterization necessary.

Indicanuria in Children.

C. Cattaneo has studied this question from clinical material, and has arrived at the following conclusions (Pediatrics):

1. Pathologic indicanuria, may make its appearance in various diseases of childhood (not only in tuberculosis and affections of the digestive tract).

2. In tuberculosis indican is present in the urine constantly [89.5 per cent.]; in the greater number of cases [76.3 per cent.] indicanuria is pathological.

3. In disease of the digestive apparatus, indicanuria is also frequent, but is not constant in these cases, as there are some cases even in which not a trace of indican is present in the urine.

4. Although no diagnostic value can be attributed to the indicanuria in the tuberculosis of children, it may nevertheless be maintained that after excluding intestinal diseases, and suppurative processes, a permanent increase of indican in the urine may, in suspicious cases, be looked upon as pointing to tuberculosis.

Diabetic Albuminuria and its Treatment.

Goudart has recently devoted much attention to this subject. (British Medical Journal.)

First, the frequency of albuminaria in diabetes is variable, and may occur in two forms, functional and that due to grave nephritic disease. In the first form it may be extremely slight, or else constitute a very marked feature in the case. When slight, proper dieting and small doses of antipyrine combined with a little bicarbonate of soda in the form of a powder may be given every one and a half hours before each meal. This treatment should not be continued more than three or four days, beyond which time the antipyrine will become injurious. It is well to prescribe some quinine, wine, and Vichy water at meals. After this treatment the sugar decreases considerably, in other cases it remains unaffected. In the first instance, anti-diabetic treatment may be set aside and attention devoted to the albuminuria: in the second instance, it is advisable to order small doses of arseniate of soda combined with codeine and carbonate of lithia. Most usually the glycosuria diminishes under this treatment, and the albuminuria is then treated in the same manner as above. This line of treatment is usually followed by extremely satisfactory results. After a fortnight or so it is recommended to give phosphates with nux vomica, or later, hypophosphites of lime potash, or soda with quinine. Should the quantity of albumen eliminated in twenty-four hours reach two to three grammes the case is practically one of Bright's disease, and patient is put on milk diet. The author now recommends lactate of strontium in small doses.

Chronic Gonorrheal Vaginitis and its Treatment.

O. Bodenstein [University Medical Magazine], in an article on the above subject, holds that the chief seat of chronic gonorrheal colpitis is in the posterior vaginal fornix, and that this locality, and not the urethra, is the primary seat of infection. Inasmuch as the urethra is almost invariably involved, most authors have considered it to be the starting point of the process.

He quotes the following clinical data from Sanger for the establishment of the diagnosis of chronic gonorrheal infection:

1. The history may reveal [a] gonorrheal ophthalmia of one or more children; [b] former ardor urinæ; [c] the presence of gonorrhea in the husband.
2. Bartholin's gland may be diseased. A petechial purplish-red area about the orifice of the ducts is characteristic. The "gonorrheal macule," which may be present on both sides, with a reddening of the orifice of the urethra, is especially suggestive.
3. When fistulæ, abscesses and cysts of Bartholin's glands exists the evidence is conclusive.
4. Condylomata upon the vulva.
5. Dark-red spots upon a yellowish-white-streaked base about the vaginal orifice.
6. Erosion of the external os of the cervix.
7. In chronic gonorrhea local application of 50-per-cent. solution of chloride of zinc to the vaginal mucous membrane will bring granulæ into sharp relief.
8. The uterus and appendages may be involved.

In treating the condition irrigations with strong solutions of bichloride and carbolic acid should be practised by thə patient while in a recumbent position, with the bag at an elevation of from three to five feet. Special attention is called to the advantage of making use of the air in the douch-nozzle to distend and balloon out the vagina, as in this manner all the folds and irregularities in the mucous surface are removed, and the eutire surface becomes accessible to the irrigating solution.

The paper, however, is directed chiefly to those cases in which irrigation treatment has proven successful. As in the disease in the male urethra, chronic gonorrheal vaginitis is a deep-seated process, and the micro-organisms are situated in the submucosa, so that they are but slightly affected by irrigation, especially as ordinarily practised.

Since in the treatment of chronic urethitis in the male large sounds are used, which distend the affected areas, mechanically bringing the gonococci nearer to the surface, and exciting increesed secretion, which is controlled by local application, he reasons that an analogous line of treatment can be followed with advantage in the female.

He therefore employs, in chronic vaginitis, a firm tamponade in the upper half of the vagina which completely fills in the fornices. Glycerine is placed upon the tampon to soften and desquamate the abnormally thick, horny layer of epithelium, and to wash the gonococci nearer to the surface, which it does by establishing an exosmosis by virtue of its hygroscopic properties.

At the end of twenty-four hours the tampon is removed, the secretion, which is increased in amount, wiped out, and a local application made of solution of nitrate of silver, varying in strength from 2 to 20 per cent.

The same course of treatment is then repeated and an early cure usually obtained, unless the seat of infection has extended into the tubes.

Fœtus Papyraceus.

Littauer (Centralbl. f. Gynak., No. 2, 1898) exhibited a specimen of fœtus papyraceus at a recent meeting of the Leipzig Obstetrical Society. It was expelled during a twin labour at term, and preceded its brother, which was well developed and delivered spontaneously. The lower part of the fœtus was devoid of all anatomilcal form. It seems to have died at about the third month.—British Medical Journal.

Quackery in Germany.

The Kingdom of Saxony is described by a German writer as an Eldorado for quacks. (British Medical Journal.) The annual report of the Saxon National Medical College for 1896 states that in that year no fewer than 745 quacks, naked and not ashamed, flourished in that happy land. This number was greater by 42 than that given for the previous year. The total number of legally qualified medical practitioners in Saxony for the corresponding period was 1,761, so that, approximately, there was one quack to every two regular doctors. In certain districts, however, such as Zittau, Kamenz, Rochlitz, Annaberg, and Glachau, the quacks outnumbered the doctors. Of the 745 quacks, 163 were women. Of the special "lines" of quackery the most numerously represented was "nature healing," which was professed by 220 persons; then came sympathy, with 106 exponents, homœopathy with 97, massage with 72, magnetism with 46, and tapeworm-curing with 19. One enterprising gentleman makes a specialty of illumination of the cavities of the body with the electric light.

The Digestion of Starch in the Stomach.

Dr. A. L. Benedict, in a paper on "Some Physiological and Anatomical Questions Regarding the Stomach," published in Medicine, says:

There are some chemical problems in connection with gastric digestion about which dense ignorance prevails, or, worse yet, we are even ignorant of our ignorance. Many very sensible physicians are ordering all sorts of digestants of starch, on the hypothesis that there is a fault of amylaceous digestion in the stomach. Normally, the only digestion of starch that takes place in the stomach is a very incomplete process, due to the action of ptyalin. It would be a good plan for the prescribers of diastase to demonstrate a failure of ptyalin in the saliva before they administer the artificial substitute. Personally I should be very grateful to anyone who would find such a failure, as it is something for which I have made a long search without success. Many misleading notions have become current concerning starch digestion, and we must remember: 1, that only cooked starch is digested in the stomach; 2, that it is digested only into maltose, not into glucose; 3 that with even careful mastication of a light test-meal, only the dissolved starch is fully changed to maltose within an hour or a little less; 4, that after ordinary mixed meals the amount of starch digestion that takes place in the stomach is relatively insignificant; 5, that absolute lack of starch digestion in the stomach would be a trivial matter, providing abnormal fermentation of carbo hydrates were prevented, as it may be by administering hydrochloric acid or other antiseptics; 6, that it is only in cases in which super-alimentation is plainly indicated that diastase is needed. There is one puzzle about which I have vainly sought the information of various physiological chemists: Where is the maltose, which is certainly formed in and absorbed from the stomach, changed into glucose, which is the only sugar found in the general circulation?

Prosperity as a Factor in Inebriety.

The Editor of the Quarterly Journal of Inebriety, in a recent edition of his Journal discusses this subject. He says:

A certain number of cases of inebriety never use spirits except when elated from prosperity and success. At other times they are strict abstainers, and often violent opponents of spirit drinking. The relaxation from effort and strain, and the first appearance of success, in the attainment of some ambition, is always followed by the drink impulse. Among the lowest classes the accumulation of money brings facilities for procuring spirits, with leisure and opportunity for indulgence. With this class the anæsthesia of alcohol is the most agreeable mental sensation they experience, and however short it may be the impression is very vivid on the memory. The pains and suffering after leave feebler impressions, and are more quickly forgotten. Higher up in the social and mental scale, prosperity in the accumulation of property, or the attainment of position, or particular object sought for, brings with it a certain reaction or relaxation of nerve force, which in certain unstable nerve centers is manifest in exhaustion. This condition, always vague and uncertain, is most quickly relieved by spirits. This anesthesia seems to give power to realize the new conditions, and adjust them to the present. An unknown pathological condition encourages the use of spirits, together with mental feebleness, which responds to every contagious influence from without. A strong temperance advocate was elected to a high office. In the excitement of elation over the event he yielded to the invitation to use spirits. This was clearly mental feebleness from reaction. He was astonished and could not explain his conduct after. States of insomnia and confusional emotional activity follow, which alcohol seems to relieve. The successes of life are clearly manifest by very different mental conditions, from those associated with the fears and struggle to succeed. From this point of view some probable ideas of the reason are seen for this obscure factor in the causation of inebriety. One case under my care, where a strong temperance man of 40 suddenly came into possession of a large amount of property, and became an inebriate in a few months. An ambitious lawyer was elected to Congress, and drank to great excess during his term of service, then came under my care, recovered and became a temperate man until desth, ten years later. Before his election to Congress he was a total abstainer. A third case, after passing a life of 50 years of total abstinence, began to drink to excess, on the sudden prominence from wealth from inheritance. A mother went from the country to spend a few months in the home of her daughter in the city. She began to uso spirits andcontinued up to death. The joy and satisfaction of her daughter's home seemed to have been the exciting cause. Grief is followed by the same effects, and many cases are noted where this condition has been the active exciting cause. Joy seems more exhausting to au unstable nervous system, and alcohol acts as a sedative, steadying the trembling neurotic activities. It seems more difficult to escape alcohol and other narcotic infection, in prosperity, especially when it comes on suddenly, than to avoid it in the stress of adversity.

Levi's Injection for Hydrocele.

John A. Wyeth, in a letter to the New York Medical Journal of February 5, 1898. indorses the injection method. The technique is described as follows:

On the anterior aspect of the tumor an area an inch in diameter should be thoroughlo cleansed with soap and water and a little mercuric chloride solution. Then with a delicate hypodermic needle inject three to five minims of a four-per-cent. solution of cocaine. Through this anesthetized area, after grasping the scrotum to make it as tense as possible, thrust a trocar and cannula. This cannula should be threaded in order to fit the screw tip of an ordinary large-size hypodermic syringe. As soon as the point of the cannula and trocar pass freely into the cavity of the sac, the trocar is withdrawn and the fluid allowed to escape. Gentle pressure applied to the sac, taking pains nol to allow the cannula to be extruded, will empty all but a few drops of fluid. The next step in the operation is the injection of liquid carbolic acid, 95-per-cent. The quantity to be thrown in varies with the size of the tumor, twenty minims for a sac containing two to six ounces, gradually increasing to as much as sixty minims for a sac containing a pint. Care should be taken not to carry any air through the syringe into the cavity. The fluid having been evacuated and the proper quantity of carbolic acid placed in the syringe, the thred is now screwed into the corresponding threads of the cannula, a little clean vaseline is spread upon the scrotum around the needle puncture to prevent any possible leakage of acid on the integument, and the contents of the syringe forced in. When the cannula is withdrawn, gentle massage of the scrotum is practised until the injected carbolic acid has been brought into contact with every part of the tunica vaginalis testis. The operation is almost entirely free from pain. No dressing is required, and if properly done it should cure about 75 per cent. of all cases of hydrocele at a first injection. When it fails it should be carefully repeated, increasing or diminishing the quantity of acid thrown in as may be necessary to insure a perfect result. It is important that the strictest aseptis be carried out, since the introduction of any septic organism would produce a painful process of suppuration not without danger to the patient. Twenty-four or twenty-eight hours after this operation the scrotum appears as large as ever, is heavy, and seems solid or doughy to the feel. After a week or ten days it begins to decrease in size, and after the epithelial lining which furnished the serum has been destroyed by the injection, it does not again refill with fluid, but gradually contracts and adhesions form, thus effecting a cure. The walls of the scrotum, however, are usually much thickened by a chronic hydrocele, and never regain their former thinness.

Epilepsy Eighteen Months after Syphilis —Recurring Herpes of Pharynx.

Dr. Jonathan Hutchinson, in Archives of Surgery describes an instructive case, of a gentleman aged 34, who had primary syphilis in May of 1888, for which he took mercury. Subsequently he had herpes of the pharynx, and several times after taking cold had sore throats, probably of an herpetic character. For these he was under my care in November of 1889, and he then gave me the history which chiefly makes his case of interest. He had been suffering, he said, from headache, and had had an epileptic fit. The fit occurred when he was in the water closet. It came without warning, and was attended by tongue biting. He had been feeling unwell for some little time previously. Thus his hands used to shake, and he had frequently a feeling of giddiness. and at other times of sleepiness. It will be seen that this fit occcured within eighteen months of the primary disease, and the question was whether it should be regarded as in connection with the syphilis. His syphilis had in first instance not been very efficiently treated. I did not see him until seven months after the chancre, and he then still had his eruption out. The eruption quickly disappeared under the mercury which I ordered, but even whilst taking it he had a sharp attack of iritis in one eye. Of the latter he got quite well, and I did not see him for nearly six months, when he came with the history of his epileptic attack and headaches.

In the cases of herpetic pharyngitis which occur, not infrequently, soon after the secondary stage of syphilis, the vesicles are, I think, usually seen on one side only. In these cases recurrences not unfrequently occur, but the liability to them does not last very long. In such as those just quoted, in which the recurrences are very frequent and persist for many years, all tendency to unilateral development is, I believe, lost. It is seldom that the difference can be detected between the two sides, and if it be so it is seldom maintained in different attacks. These cases stand apart from those to which I have next to ask attention, in which groups of herpetic vesicles, like shingles on a small scale, recur repeatedly on or near to the same region of the skin. These cases occur in my experience almost always either on the face or neck, or near to the buttocks. They are exceedingly rare on the limbs or on any part of the trunk. The subjects of recurring shingles on the face or neck are usually females and young children, and there is no association with syphilis. Those who have these attacks on the buttocks or upper parts of thighs are, on the contrary, usually adult men who have suffered from syphilis.

Immunity Theories from a Clinical Standpoint.

W. G. Thompson (Medical Record) makes the following *resume:* (1) The phagocytic action of the leucocytes in combating infection is of but little importance, and is mainly concerned in the removal of waste products rather than the devouring of living bacteria. (2) The leucocytes probably secrete substances which are both inimical to living bacteria and antagonistic to their toxins. The antagonism may be through digestion of the toxins and through counteracting the irritant effect of the toxins upon the general tissues and cells of the body. (3) The antitoxins of the serum, whether artificially injected or developed within the body, do not act by chemical neutralization of the toxins, but through stimulation to greater resistance of either the leucocytes or the tissues, or both. (4) The blood itself, neither through its leucocytes nor through its serum, is capable of producing all the phenomena of perfect immunity. To a limited extent only can it be relied upon for the prohibition of toxic symptoms. (5) It remains for the tissues to offer the final combat against the toxins, and to develop a more or less permanent resistance to them, which is transmitted to successive cell generations as more or less permanent immunity. To this effort they may be incited by either toxins or antitoxins, in addition to the exercise of the inherent property of living protoplasm to resent irritation of any sort. (6) It is probable that natural immunity does not differ in kind from acquired immunity, and that it is really, originally, acquired immunity which has been perpetuated for an unusually long period through succeeding generations.

Habitual Constipation in Infants.

Durante (Archives of Pediatrics) states that the tendency to constipation has been attributed by some writers to the well known anatomical peculiarities of the intestinal tract in infants.

Other observers maintain that the tendency depends upon the lack of cerebral development. The centers controlling the act of defecation fail in performing their functions. The habitual recumbent position of the very young is supposed by many to predispose to constipation.

The author is of the opinion that the chief cause of the trouble rests with the diet. The infant stool is composed largely of casein and fat, from 20 to 40 per cent. of the latter. The fat renders the stool soft and pultaceous, thereby facilitating its passage. When the milk is thinned by the addition with water, as is customary, the child receives much less fat than is contained in average mother's milk. As a result of this deficiency, the stool is compossd largely of casein which forms into large, hard masses, and blocks up the canal.

The management in a great majority of the cases of constipation in infants resolves itself into supplying the requisite amount of fat to the food.

The Operative Treatment of Goitre.

Wormser, who has had much experience of the operative treatment of goitre in Kocher's clinic at Berne, is of opinion that the possible mishaps of thyroidectomy are not so serious as to counterbalance the many advantages of this method, whilst, on the other hand, strumectomy or interglandular enucleation is too rarely indicated to claim recognition as a regular operation. (British Medical Journal.) Thyroidectomy as now performed by Kocher permits the surgeon to establish a complete hæmostasis, to avoid any injury to the recurrent nerves, and to preserve a part of the normal glandular structure if such should persist at the time of operation. This operation, it is held, affords the best conditions for immediate healing, causes very little disfigurement, and renders impossible any local relapse of the disease. In strumectomy the loss of blood is usually abundant, and often very serious, and there is risk of secondary hæmorrhage. As the wound is deep and irregular, surrounded by torn thyroid tissue, and occupied by blood, there is a greater risk after enucleation, of infective disorders. Moreover, as has been proved by statistics, relapses are much more frequent after this operation than after thyroidectomy. This latter operation, the author states, is indicated in cases of (1) Malignant tumor of the thyroid gland; (2) acute and chronic strumitis; (3) parenchymatous goitre—diffuse hypertrophy of the gland; (4) polycystic goitre; and (5) goitre with disseminated foci. It is contra-indicated in cases in which no normal thyroid tissue is left. Strumectomy may be practiced in cases of (1) unilocular cystic goitre; (2) isolated nodules enclosed in normal tissue, if such can be removed rapidly and without much bleeding; (3) large morbid deposits existing in immovable goitres.

A Method of Exploring the Kidney without Division of Muscles, Vessels, or Nerves.

Mr. Mayo Robson read a paper on a method of exploring aad operating on the kidney by splitting the muscles, thus avoiding the division of any muscles, vessels or nerves. (Leeds and West Riding Medico-Chirurgical Society, April 28, 1898, British Medical Journal). He gave a brief account of a number of cases on which he had operated in this manner. The advantages claimed for the method were: (1) There is no division of muscle, and therefore no weakening of the abdominal wall, immediate or remote. (2) No vessels are divided, thus not only saving time, but rendering healing per primam more likely. (3) No nerves are severed, and therefore paralysis of the rectus and other muscles is avoided. (4) The operation is done with the patient lying on the back, to the great convenience of the anæsthetist, the operator, and his assistants, and to the manifest advantage of the patient, who is saved much unnecessary disturbance. (5) The great saving of time as well as the diminution of hemorrhage means lessening of shock, thus rendering operation feasible when it otherwise might be questionable. (6) It is an important fact that diagnosis in kidney cases, especially in renal calculus, is by no means perfect, and if it can be proved that an exploration of the kidney can be done quickly, with little or no danger, and without any subsequent weakness being left, the physician will be less loth to permit, and the surgeon to perform, an exploratory operation after all other means have been fruitlessly tried. (7) After such an operation convalescence is materially shortened, as the patient may safely be allowed to be up at the end of the second week, or even earlier. since there is no fear of the wound giving way.

Stone in the Bladder.

Cunningham (British Medical Journal) concludes from his experience in 133 operated cases that not more than 3 per cent. are unsuitable for litholapaxy. He gives the following tabulation of unsuitable cases:

1. Those with such condition of the passages that the lithortrite necessary for crushing the stone cannot be passed. In some children (seven reported cases), the urethra was too small.

2. The stone may be so large that the largest lithotrite will not lock on it; or it may be so hard that it will resist the greatest force that the instrument will bear or the operator will be able to exert.

3. A stone in the bladder may be complicated with one or more in the membranous or prostatic portion of the urethra. which cannot be pushed back into the bladder; or the stone may be encysted, or may be complicated with a tumor of the bladder.

4. A state of affairs may exist that makes it desirable to establish complete drainage and rest the bladder after removal of the stone, such as extensive cystitis with ammoniacal urine, and especially if associated with stricture of the uretha.

5. Such a condition or irritability of the bladder that the organ will retain no fluids even under profound anesthesia. The stone being clasped by its hypertrophied wall in

this latter case, an expert might perform litholapaxy without increasing the patient's risk, but perineal lithotomy would have considerable advantage in such cases in allowing rest and drainage to the bladder.

Of the the cutting operations, the author states most emphatically that he prefers the perineal method, and restricts the suprapubic operation to the following conditions:

(a) Exceptionally large calculi, and these would probably be dealt with by perineal lithotrity.

(b) Encysted calculi. (c) Calculi associated with tumor of the bladder, which it is advisable to remove at the same time.

Blood Reaction in Diabetes.

Loewy (British Medical Journal) records some further investigations of Bremer's reaction in the blood of diabetic patients. The original method of obtaining the reaction was to stain a film of blood in two solutions, each consisting of a mixture of 0.5 per cent. solution of eosin with a saturated solution of methylene blue, the one contained excess of the former, the other excess of the latter stain. After passing the film through these two mixtures successively, Bremer found that in normal blood the red corpuscles were stained deep brown, whereas in diabetic blood they are left pale yellow or greenish yellow. Loewy, in his experiments, used the simpler modification which has lately been suggested. The blood is stained two minutes in 2 per cent. methylene blue, and then 10 seconds in 0.125 per cent. eosin solution. Keeping strictly to the technique described by Bremer in this method, Loewy found that in every case of diabetes in which the amount of sugar in the urine was more than 2 per cent., the blood gave the characteristic reaction. In one case, where dieting had already caused the sugar to disappear, the reaction was still obtained in the blood. The failure of several observers to obtain the reaction in diabetes is probably due to their not having paid sufficient attention to the details of the method, which must be adhered to strictly. No reaction was obtained in the blood in cases of severe anæmia; no opportunity occurred for trying it in leuæmia, in which some observers have found the reaction. The blood plasma is not necessary for the reaction; 5 c. cm. of blood were taken from a vein of a diabetic patient, and separated from the plasma by a centrifuge; the corpuscles were then washed with normal salt solution until the washings showed no trace of sugar; the typical Bremer reaction was then obtained with the blood corpuscles. It was also found that normal blood treated with a weak acid gave the reaction.

The Acidity of the Urine.

Dr. T. R. Bradshaw, on the 28th of April, at the Liverpool Medical Society, read a note on this subject. (British Medical Journal.) He showed that litmus could not be employed as the indicator in the estimation of acidity in the urine, because solutions containing salts of phosphoric acid were never neutral to litmus: if they were not distinctly acid, or alkaline, they were amphoteric. He advocated the employment of phenol-phthalein as an indicator, and maintained that the objections which had been urged against its employment were not valid. His observations led him to differ from the teaching of Bence Jones and Sir William Roberts, who held that the urine was diminished after a meal. He found from the averages drawn from 160 estimations of the acidity of the urine of a healthy man that the acidity followed a fairly regular curve; high during sleep, it fell rapidly after "getting up," and remained at a minimum until about noon, after which it rose steadily, and reached a maximum about 9 P.M. He found that the absolute amount of acid excreted varied nearly on the sames lines as the relative acidity; and, further, that it varied inversely as to the amount of water. The latter was a remarkable circumstance, which was unconsciously acted upon by the physician when he gave alkalies to promote diuresis.

Appendicitis and Pregnancy.

Pinard reports the case of a previously healthy young woman who was suddenly seized with violent epigastric pain radiating into the right iliac fossa. (Edinburgh Medical Journal.) The next day vomiting began. On the fourth day there was considerable meteorism, but a tumour corresponding to the gravid uterus was found, with tenderness over McBurney's point. *Per vaginam* nothing abnormal discovered. Temperature 98.6 F., pulse 120. On the fifth day Segond operated and let out a quantity of fœtid pus. During the night a living 5½ months' fœtus was expelled, which, however, died soon after. *Post-mortem* there was gangrene of the appendix in three separate places. Blood from the child's umbilical cord gave pure cultures of B. coli. The author has collected 45 cases of appendicitis complicating pregnancy, the diagnosis being confirmed in 20 by operation or *post-mortem*. He concludes from these that: (1) Appendicitis may attack a pregnant woman at the beginning or at any time during pregnancy or the puerperium. (2) In most cases it causes abortion. The child dies as a rule, very rapidly, as the author's case proves, from infection. (3) It is only possible to save both the mother and child when the abscess is limited and encysted. (4) Every type of appendicitis may occur. (5) The diagnosis may be difficult owing to the enlarged uterus, or still more during the puerperium, but is usually possible with care. (6) Treatment consists in operating as early as possible. A preliminary induction of premature labour is unjustifiable, since pregnancy is not always interrupted if the mother recovers. (7) Prophylaxis consists in operating in every case of relapsing appendicitis in a young girl or non-pregnant woman during the period of sexual activity to prevent future complications during pregnancy.

Hemorrhoids.

Professor Mitchell Banks, (Birkenhead Medical Society, April 15, 1898), read a paper on Practical Experiences in Rectal Disease. With regard to the operation to be employed for the destruction or removal of hæmorrhoids, he thought that there were three or four means which might each be employed with advantage by a surgeon who had familiarized himself with one particular method and had acquired dexterity in its use. (British Medical Journal.) For himself he had been a consistent advocate of the clamp-and-cautery operation introduced by Mr. Henry Smith, and had certainly done it some two or three hundred times at the lowest estimate. What greatly induced him to adhere to it was the remarkably satisfactory results that followed; for never once had a patient come back with a return of his piles. Whatever drawbacks might be urged against the operation, he was absolutely certain of its permanently curative effect if properly done. After the operation he was in the habit of tying into the bowel a short flanged glass tube. This allowed the passage of flatus, which was one of the things that greatly worried patients for the first twenty-four hours. It, moveover, enabled the blood to escape if any secondary hæmorrhages occurred, and so warning was given. He had heard surgeons state that they never had such a thing as secondary bleeding. He could only say that if they went on operating long enough such a case would turn up. To minimize the danger of this, after clamping the pile he rarely cut it off, but slowly frizzled it up into a leathery state by repeated applications of the cautery at not too great a heat. His experience of Kraske's operation made him think that it was one of the valuable operations for cancerous disease of recent origin, because the sacral glands did not seem to be so early affected as in many other parts of the body, and so a chance was given for immunity to follow free local extirpation. What was so remarkable in the modern rectal operations was that one might pull down even the sigmoid flexture into the wound, while the opening of the peritoneum seemed to be productive of very little danger. His own view was against a preliminary colytomy. As a rule, a patient required every particle of strength to stand up against an extensive removal of the rectum, for the bleeding alone at the time of operation was often most alarming. Of course some time must elapse before the full value of the operation was known, but he could mention the case of a lady who was well and managing the affairs of a considerable household eight years after the operation, and that of a gentleman who was actively doing the work of surveyor to a marine insurance company after three years. Both were quite free from return. Professor Banks drew attention to certain severe cases of pruritus and which defied all ordinary remedies, and which reduced the patients to the most miserable condition. He instanced three patients, of whom one was a merchant in a large way of business, who at length was quite unable to attend to it; and another, that of a gentleman who came from South Africa in search of relief from his complaint. They were all permanently cured by a smart application of the actual cautery around the anus and for a short distance within it.

Medical Excursion in June--Denver to Salt Lake City.

The Medical Excursion in June will leave Denver for Salt Lake City—the Zion of the new world—on the last day of the meeting and the two successive days via the Rio Grande Western Railway in connection with the D. & R. G. and Colo. Mid. Lines. The rate will be but $18.00 for the round trip, offering a trip of 1500 miles through the Rocky and Wasatch Mountains. No European trip of equal length can compare with it in grandeur or wealth of novel interest. Salt Lake City and vicinity is one grand sanitarium. The Great Salt Lake or Dead Sea of America with its magnificent bathing resort, the Hot and Warm Springs, Drives, Parks, Canyons and Reserves are all located in or about the city. Send two cents to F. A. W dleigh, Salt Lake City for copy of pamphlet.

Nephritis of Malarial Origin.

At the Thirteenth Annual Meeting of the American Physicians, Dr. Wm. S. Thayer, of Baltimore, read a paper with this title, in which he referred to the frequency of albuminuria in malarial fever. (Medical Record.) In looking over the statistics and in his own cases he had found that a large proportion of cases of malarial fever had albuminuria and casts, but principally the cases of æstivo-autumnal fever. Of seven hundred and fifty-eight cases of malarial fever there were albuminuria in three hundred and twenty-one and casts in one hundred and twenty-one. Albumin was present in nearly one-half the cases. He had had nineteen cases of acute nephritis, of malarial origin. He had found in general that his own statistics agreed largely with others he had collected, except in some few cases. In scarlet fever there was, of course, a certain number of cases of albuminuria and casts; also in diphtheria and typhoid fever. Albumin was probably present in about one-half the cases of scarlet fever, and malaria seemed to be the cause of more cases than was generally supposed, but not so often as in yellow fever, and for this reason we could not place too great reliance on the presence of albumin in yellow fever. In one hundred and fifty-two cases of nephritis; seven were tertian, ten æstivo-autumnal, and three of varied type. There were thirteen recoveries and four deaths. Nine cases were doubtful. The speaker also gave statistics of the age, sex and color in these cases. He thought there was a possible etiological relation between nephritis and malarial infection.

Acute Degenerations of the Nervous System in Diphtheria.

J. J. Thomas in The Boston Medical and Surgical Journal, declares that the changes in the peripheral nerves are usually of the perenchymatous type, consisting of a degenerative process due to the presence of toxic products arising in the course of the disease, directly or indirectly from the micro-organisms producing the disease. These peripheral nerves undoubtedly show also, at times, that an interstitial process has beeen added to the degenerative one. Mention is made of smaller or larger hæmorrhages into the brain and spinal cord, some researches describing processes which are considered to be a myelitis. It is due, probably to the effects of some such process as this, or to an inflammatory infiltration in the central nervous system that such diseases as multiple sclerosis following diphtheria are seen. More rarely, vascular lesions of the brain, embolism, thrombosis, or hemorrhage resulting in hemiplegia are met with. The cases reported do not cover all the changes of the nervous structures in this disease, but rather show the extent of the acute degenerative changes produced by it.

Uretero-Vaginal and Uretero-Abdominal Fistulae.

Dr. Alexander H. Ferguson, (Jour. Am. Med. Asso.) reports two cases of ureteral fistula that occurred in his practice, and which led him to investigate this interesting and comparatively rare surgical affection. He has collected sixty-five cases, which with the two of his own, makes sixty-seven cases in all. Of this number sixty were uretero-viginal, four uretero-uterine and three uretero-abdominal. This does not include fistulae from the kidneys, nor the uretero-lumbar and uretero-inguinal varieties. No cognizance was taken of the various primary operations performed on patients, accidentally injured ureters while operating upon the pelvic organs. The ages of the patients varied from 19 to 64 years, excluding those persons having the congenital forms. The author dwelt upon the etiology, and considered at some length operations and results, after which he reported his two cases in detail.

He drew the following conclusions from the sixty-seven cases of ureteral fistulae reported:

1. The left ureter is more frequently the seat of trouble than the right.

2. The most frequent variety is the uretero-vaginal, and the rarest is the uretero-abdominal fistula.

3. The most common cause is difficult labor; and forceps delivery is a prominent etiologic factor.

4. Of all the operations performed in the pelvis, vaginal hysterectomy is the most frequent case of ureteral fistula.

5. Other conditions being favorable, all cases of ureteral fistula are curable by operation: a, In all cases of uretero-vaginal fistula the direct method of operating should be selected and no particular operator's method is applicable to all cases. When the ureteral opening is situated close to the bladder, Schede's operation is the most surgical and is applicable to the greater number of cases; when situated far away from the bladder, as in his case, a plastic operation on the principles carried out by him should be tried before a greater or more mutilating procedure is thought of. Intraperitioneal operations are suitable for the abdominal fistulae.

6. For the cure of uretero-vaginal fistula,

it is, in his opinion, absolutely unjustifiable to perform hysterectomy, nephrectomy, or kolpokleisis When septic infection of the kidney occurs it may be necessary to open or remove it. It bespeaks lack of surgical ability to remove a kidney, a uterus, or close a vagina en these cases of simple fistula.

7. Another procedure which he thinks uncalled for is transplanting of the cervix uteri into the bladder for the treatment of uretero uterine fistula, for it causes sterility and the menstrual flow is abnormally directed, and besides a disturbed bladder might cause a backward flow of urine into the uterus, Fallopian tubes or even peritoneal cavity, depending upon the condition of the organs.

8. Directing the urine into a bowel is only justified when any other operation cannot be performed. While uretero-enterostomy has been successfully performed it has but little to recommend it on general principles.

Note on the Poisonous Action of Creosote and Guaiacol as Compared with Creosotal and Guaiacol Carbonate.

At the session of the Society of Charite Physicians of Berlin held on May 20th, 1897, (Berliner Klinische Wochenschrift, 1897, No. 49), Dr. P. Jacob reported on the favorable results that he had gotten from the use of Creosotal in the phthisical cases of the First Medical Poliklinik. In the discussion that followed it was stated by one member that creosote itself was of at least an equal value with Creosotal, and that one case under his care had stood daily doses of 8 grams (2 drachms) for many months. It appears that such large doses of creosote have been used recently in a number of cases. Such carelessness in the use of the poisonous creosote induces me to record certain experiments that I have recently made, and which have a bearing upon the subject. The results of these experiments lead me to make the statement that the administration of such large doses of creosote is a decidedly risky matter.

1. On November 10th of this year a dog weighing 6¼ kilograms (13¾ lbs.) was given 10 grams (2½ drachms) of creosote in gelatine capsules. Five minutes later the animal became stupid and relaxed. Then it fell down, and could not rise again. It became senseless, and twitching of the limbs, lips, and ears appeared. There was no reaction of the lids, the breathing became rattling, and 20 minutes after the administration of the first capsule death occurred without any other special symptoms. The autopsy showed an acute gastro-enteritis (stomach badly cauterized, small intestine violently inflamed), and œdema of the lungs in consequence of cardiac paralysis.

2. On the same day the attempt was made to give a dog weighing 9½ kilograms (21 lbs.) 16 grams (4 drachms) of Creosotal. It was only found possible to administer 3 grams (¾ drachm). The general condition of the animal was not disturbed in the least by the dose.

3. On November 11th, 16 grams (4 drachms) of Creosotal were administered to the same dog in gelatine capsules. An hour and a half later there was a semi-fluid stool. One and a half pounds of mixed food (meat and rice) was then given to the animal. Three hours after the ingestion of the Creosotal he vomited a part of this food. Part of the vomit he ate up again. Beyond a very transitory dullness and languor nothing abnormal could be noticed about the dog.

4. On November 13th, a dog weighing 10 kilograms (22 lbs.), was given 20 grams (5 drachms) of Creosotal in gelatine capsules. There occurred no change in his general condition.

5. On November 13th, a dog weighing 4¾ kilograms (10½ lbs.), received 4 grams (1 drachm) of liquid guaiacol in gelatine capsules. Immediately thereafter he drank some milk.

Thirty-five minutes after the ingestion of the first capsule there was uncertainty in the movements of the posterior portion of the body, and wobbling gait.

Forty minutes after the ingestion of the first capsule the animal fell repeatedly and got up again.

Forty-five minutes after the ingestion of the first capsule: vomiting of the milk, trembling, more especially of the limbs; deficient pupillary reaction.

One hour after the administration of the first capsule: repeated vomiting of milk; rattling breaking; watery flow from the mouth; cannot stand up.

An hour and a third after the administration of the first capsule: vomiting of milk and mucous; sensibility gone; mucous flow from the mouth.

Two hours after ingestion of the first capsule: repeated attempts to get up, which are occasionally successful; dizziness and falling.

Two and one-third hours after the ingestion of the first capsule: lies quietly; subnormal temperature; very rapid pulse.

Three and two-third hours after the ingestion of the first capsule: lies motionless; breathing difficult, infrequent (eight to the minute), and stertorous.

In this condition the animal remained for three hours; then the breathing became still less, the animal got cold, and it died half an hour later ($7\frac{1}{6}$ hours after the administration of the first capsule). The post-mortem revealed the presence of an acute gastro-enteritis (violent inflammation of the stomach and the first 40 centimeters ($15\frac{1}{2}$ inches) of the small intestine, with swelling of the mucosa of the rest of the canal) and œdema of the lungs in consequence of cardiac paralysis.

6. On November 10th, the dog of 10 kilograms (22 lbs.) weight, used in experiment No. 4 was given 20 grams (5 drachms) of Guaiacol Carbonate in $\frac{1}{2}$ kilogram (1 1-10 lbs.) of raw chopped meat. His general condition was not disturbed thereby in the slightest.

7. On November 13th, the dog weighing $9\frac{1}{2}$ kilograms (21 lbs.) mentioned under No. 2, was given 25 grams ($6\frac{1}{4}$ drachms) of Guaiacol Carbonate in $\frac{1}{2}$ kilogram (1 1-10 lbs.) of chopped meat. His condition remained normal.

The experiments fully confirm the accepted facts concerning the drugs in question. They prove that both creosote and guaiacol are poisonous and fatal in large doses, and that they are irritant and caustic. They also prove that Creosotal and Guaiacol Carbonate even in large doses do not disturb the general health in the slightest.

Pyroctin.

This is an age in which the medical profession is being deluged with new preparations, coming from every conceivable source, each of which is said to possess special virtues in the alleviation and cure of disease.

The busy practitioner of today has but little time to give to the especial investigation of the physiological action of these several preparations, and owing to that fact, I ask the reader's indulgence while I write briefly of the individual merits of one of the coal tar derivatives, which has, in my hands, given the most satisfactory results. I refer to pyroctin, which is prepared by the Pyroctin Chemical Co., of Columbia, S. C.

I have found that its action more nearly *assimilates* that of phenacetine than any other coal tar derivative.

My observation has led me to believe that there is absolutely no danger of poisonous results when given in the prescribed medicinal doses, viz: grs. V–XV., as often as the exigencies of the case may demand. The indications for its use cover a wide range in therapeutics. It acts as an antipyretic, directly upon the nervous system, by diminishing the production of heat without affecting the blood pressure. As an analgesic it acts upon the sensory tract of the spinal cord. It has not depressed the circulatory system in a single instance in my practice, which is probably due to the fact that every ten grains of pyroctin contain grain 1–100 of digitaline. It is to this virtue of not depressing the heart's action that pyroctin owes its growing popularity.

We gain nothing in the use of a preparation which removes one condition only to substitute another, which leaves our patient with a weakened heart and lowered vitality generally.

In conclusion I will say that in all forms of nervous headaches or neuroses of whatever character the results from its use have been most gratifying. In migraine and the headaches due to eye strain its action is very prompt. In fact I believe that in all cases attended with pain it can be given with the assurance of the desired result.

I have found it of untold value in acute sciatica in fifteen grain doses in combination with a like amount of salol repeated every hour until the pain ceases. Topically I have been rewarded by its use in dusting it over the surface of rodent ulcers, etc., and also as a surgical dressing, showing that it possesses decided antiseptic properties. It is eliminated by the kidneys without the unpleasant sequelæ which I have found often attend the administration of kindred preparations. C. L. Harold, M. D.

225 Michigan Ave., Chicago, Ill.
May 1, 1898.

The Climatic Treatment of Tuberculosis.

Dr. S. Edwin Solly, of Colorado Springs, read a paper on this subject at a recent meeting of the New York Academy of Medicine. He said that the climatic treatment of tuberculosis seemed to him not to have been rooted in science and fact in the past, but had hung in mid-air. The basis of all climatic therapeutics was hygiene, and the only way one could judge of any particular climate was by the meteorological data—a point frequently overlooked entirely by the physician. A large amount of the desired data had been accumulated, and if properly digested would be found in condition for assimilation. It was possible now to estimate the value of a particular climate without relying upon personal statements. Much valuable information had been secured by the United States Signal Service. In the choice of a climate the disease was only one part of the problem, the individual being an exceedingly important factor.

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LISTERINE is a non-toxic, non-irritating and non-escharotic antiseptic, composed of ozoniferous essences, vegetable antiseptics and benzo-boracic acid.
LISTERINE is sufficiently powerful to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.
LISTERINE has ever proven a trustworthy antiseptic dressing for operative or accidental wounds.
LISTERINE is invaluable in obstetrics and gynecology as a general cleansing, prophylactic, or antiseptic agent, and is an effective remedy in the treatment of catarrhal conditions of every locality.
LISTERINE is useful in the treatment of the infectious maladies which are attended by inflammation of accessible surfaces—as diphtheria, scarlet fever and pertussis.
LISTERINE is especially applicable to the treatment of scarlet fever, used freely as a mouth wash, or by means of the spray apparatus.
LISTERINE is extensively prescribed in typhoid fever both for its antiseptic effect and to improve the condition of the stomach for the reception of nourishment.
LISTERINE agreeably diluted, is prescribed with very good results, in the treatment of diphtheria, both as a prophylactic and curative—internal antiseptic—agent.
LISTERINE is used extensively with good results in the treatment of whooping cough
LISTERINE diluted with water or glycerine speedily relieves certain fermentative forms of indigestion.
LISTERINE is indispensable for the preservation of the teeth, and for maintaining the mucous membrane of the mouth in a healthy condition.
LISTERINE employed in a sick room by means of a spray, or saturated cloths hung about, is actively ozonifying and imparts an agreeable refreshing odor to the atmosphere.
LISTERINE is of accurately determined and uniform antiseptic power and of positive originality.
LISTERINE is kept in stock by the leading dealers in drugs everywhere.

Lambert's Lithiated Hydrangea.

Close clinical observation has caused Lambert's Lithiated Hydrangea *to be regarded by Physicians generally as a very valuable* Renal Alterative *and* Anti-Lithic Agent.

ALBUMINURIA.
BRIGHT'S DISEASE,
CYSTITIS,
DIABETES,
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HÆMATURIA.
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and all forms of
VESICAL IRRITATION.

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ST. LOUIS.

The Absorption of Salicylate of Soda by Cutaneous Application of Betul-ol.

While the treatment of rheumatic and gouty manifestations with sodium salicylate and colchicum preparations has been very generally replaced by colchi-sal (a solution of colchicine in natural methyl salicylate), La Strat, Laserre and others find that salicylate of methyl readily passes through the skin into the organism and Nothnagel and Rassbach have shown that the blood rapidly converts it into the sodium salicylate, so that this local treatment may be advantageously used with internal remedies.

A recent brochure by E. Gros, of Paris, entitled "A modern pathological and therapeutical study of rheumatism, gout, rheumatoid arthritis, etc.," referring to the use of colchi-sal internally, recommends that it should be given in conjunction with local applications of betul-ol, an anodyne modification of pure methyl salicylate, which is absorbed more quickly than commercial methyl salicylate or wintergreen, aad is not liable to redden or irritate the skin.

It is not absolutely necessary, moreover, to apply betul-ol to the affected part, should it be too tender or inflamed, and as it is peculiarly free from danger, it is an ideal method of giving salicylate of soda, when the drug is not tolerated by the stomach.

The existence of heart trouble has been shown to be no centre indications.

Butel-ol contains no morphine or cocain, but it may be combined with these drugs; its anodyne effects, however, are wonderfully prompt and usually this is unnecessary when painted on the cutaneous surface with a camel's hair brush.

Absorption is rapid and as soon as the surface becomes dry it may be reapplied, remembering that each minim of betul-ol is exactly equivalent to one grain of salicylate of soda in the blood.

Betul-ol is miscible in all proportions with alcohol, chloroform, ether and oils, and where friction is desirable the following formula is a good one:

R Betul-ol
Acid : Oleiciol :
Terebinth : } aa ʒ iij

Absorption of the salicylate is soon followed by freedom from pain, slight diuresis, a marked increase in all solid constituents of the urine, especially urea and uric acid, and when we realize that the drug is antiseptic, eliminative, cholagogue, antithermic and analgesic, it is easy to understand its efficacy in acute, subacute and muscular rheumatism, lumbago, neuralgia and many forms of gout.

Previous to application of the betul-ol, the skin surface should be washed with soap and warm water, to facilitate its penetrating. Further experience with betul-ol (lin methyl: salicyl: comp.) will show it to have a very wide range of usefulness either alone or allied with capsules of colchi-sal given by the stomach.

Latent Tuberculosis of the Tonsils.

Dr. Hugh Walsham, at a recent meeting of the Pathological Society of London, said that he was led to inquire into this subject in consequence of Dr. Sims Woodhead's suggestion that the tonsil was probably a frequent site of tuberculous infection, especially in children affected with tuberculosis of the cervical lymphatic glands, etc. Tuberculosis had been produced in guinea pigs by certain French observers by the inoculation with portions of enlarged tonsils, as also with adenoid vegetations from the naso-pharynx. It had been objected to such results that they were possibly due to the accidental presence of tubercle bacilli in structures not really diseased. The author, therefore, conducted a histological examination of a series of cases of "enlarged tonsils" with the result that in 21 out of 34 he had observed the histological signs of tuberculosis. Careful observations of the tonsils were greatly needed, as appeared from the scanty references to tonsillar lesions in text books of pathology. In many of the cases there had been nothing during life to direct attention to the tonsils, and for this reason he used the term "latent." It was, however, by no means always easy to determine whether the tuberculous disease so discovered was primary or secondary, that is, due to auto-inoculation in patients expectorating tuberculous sputum. Tuberculosis of adenoid vegetations was, in some cases at least, also secondary, and arose in the same manner. In acute miliary tuberculosis the tonsils, like other parts, might become infected through the blood stream.

A Doctor's Epileptic Son.

"My son is doing splendid, has had but one paroxysm in five months and I think that was caused by reducing the dose of Neurosine. I am so hopeful of a permanent cure that I am determined to persevere in this treatment. I am having many inquiries from Physicians as to the merits of 'Neurosine' and recommend it to those who have cases of Epilepsy."

G. W. Gaines, M. D.,
Ap'l 9, '98. Hickory Flat, Ky.

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THE GREAT

FOOD FOR INVALIDS

FOOD FOR CHILDREN.

HAS won the approval of physicians because its merits have been proved by years of clinical success—often in cases when life seemed depending on its retention. Therefore, while a very large majority of the medical profession are acquainted with its great value, and know from experience that no other food fills so satisfactorily such a wide range of usefulness, still no article of exceptional merit can be favorably received and recommended by physicians without being closely followed by imitations and competition, and the IMPERIAL GRANUM is not an exception.

It has justly acquired the enviable reputation of being

· · · AN · UNRIVALLED · NUTRIMENT · FOR · · ·

INVALIDS · AND · CONVALESCENTS · AND · FOR

Nursing Mothers, Infants and Children.

It contains no malt, no cane-sugar, no glucose, but is an absolutely pure food, most carefully and conscientiously prepared from the finest growths of wheat, and contains the largest possible quantity of nourishment, requiring the least possible labor for its digestion, and although in extreme cases it is prepared with water only, it is generally used in combination with milk, and no matter what physician's preference may be as to the form in which milk is to be used—as varying conditions may indicate—the perfect coadjuvancy of IMPERIAL GRANUM can always be depended on.

Literature and SAMPLES for clinical test, supplied ONLY to PHYSICIANS and trained nurses.
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SOLD BY DRUGGISTS generally.

Infantile Stools.

Dr. Charles Douglas (Medical Review of Reviews) says:

Green stools are never healthy.

They always show imperfect digestion.

The damage to the child is in direct proportion to their presence.

These stools render children more susceptible to acute gastro-enteritis in hot weather.

The high infantile summer mortality follows children suffering from this colored stool.

Through unhealthy nutrition the blood is poisoned and the various tissues are improperly nourished.

The excreting organs, particularly the kidneys and liver, are frequently damaged by the extraordinary duties imposed on them in the elimination of these poisonous results from the blood.

The continued irritation and innutrition favors the development of inherited diatheses and acquired cachexias.

No child is free from complications dangerous to life, or from developmental errors who suffers from frequently recurring green colored stools particularly the very liquid and foul smelling ones.

The Third Pan-American Medical Congress.

The committee on organization of the third Pan-American Medical Congress, which is to be held in Caracas, Venezuela, Christmas week, 1899, has been appointed as follows: President, Dr. Jose Manuel de los Rios; First Vice President, Dr. Nicanor Guardia; Second Vice President, Dr. Jose I. Cardozo; Third Vice President, Dr. Alfredo Machado; Treasurer, Dr. Luis Ezpelosin; Recording Secretary, Dr. Luis Razetti; Corresponding Secretary, Dr. Francisco A. Rizquez; and Drs. B. Mosquera, P. Acosta Ortiz, H. Rivero Saldivia, E. Ochoa, M. A. Seco, S. A. Dominci, E. Rodriguez and M. Herrera.

Fainting.

Syncope, or fainting, results from an inadequate supply of blood to the brain. The patient's head should therefore be lowered and all tight bands loosened in order to promote free circulation. Let there be a generous supply of fresh air, being careful at the same time to avoid draughts. Friction may be applied to the extremities, always remembering to rub towards, not from, the heart. Cold water dashed over the face will often assist in reviving the patient, and smelling salts are often used as a restorative.

In the case of strong smelling salts one should never hold the bottle for any length of time close to the nostrils of an unconscious person, but pass it to and fro at some little distance from the face. Perhaps the safest way is to hold the cork or stopper of the bottle near the patient's nostrils, as that will answer all purposes and prevent injurious effects.

Sanmetto the Standard Preparation for Genito-urinary Diseases.

For some years I have been a very warm admirer of Sanmetto, and have found its action marked and well defined in the cases wherein I have used it. In cases of prostatitis, with loss of virile power in elderly men I find its action superb. In chronic specific urethritis, cystitis and all irritable conditions of the urinary tract I find Sanmetto very efficacious. I do not hesitate to recommend it as a standard preparation in cases where the action of pure santal and saw-palmetto is indicated.

Jos. Marshall, M. D.
Durand, Mich.

In the course of a most elaborate and exhaustive essay on "Diabetes Mellitus," read before the Northwestern Medical and Surgical Society, New York, and published in the "New York Polyclinic," a magazine which is recognized as an exponent of leading medical thought in America, Dr. Page says:

"Instead of ordinary wheaten bread, the Watertown Diabetic Flour may be used. The 'Special Diabetie Food,' a brownish flour, prepared by Farwell & Rhines, Watertown, N. Y., makes an excellent bread that containes a very small per centage of starch.

"Saccharin may be used instead of sugar, if tea and coffee must be sweetened. Regarding vegetables in general, it may be said that all green vegetables growing above ground may be used, while all roots and the like that grow under the ground, are to be avoided on account of the starch or sugar they contain."

The above endorsement is valued because of the unquestioned standing and authority of the writer, and the magazine, and because it was given on the merits of the flour, and entirely unsolicited by Farwell & Rhines.

"Paraldehyd" possesses many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehyd (see page 524), which si an elegant preparation.

Practical Evidence.

I used your sample of Resinol on myself for Pruritus Ani, which has been my curse for several years, defying all applications. The first application proved efficacious, and I am now using and prescribing Resinol for the above and several other itching troubles. In fact, I think it is the best remedy I have ever used for the diseases for which it is recommended.
H. B. Leighton, M.D., Boston, Mass.

I have used your Resinol in Inflammatory Rheumatism with happy results. Hope others will try it. I know they will be pleased.
E. J. Burnside, M. D., Phila., Pa.

It gives me pleasure to say that Resinol is the best application for local treatment of Eczema I have ever used. I can also bear testimony to its efficacy in Erysipelas, and its soothing and healing virtues in all inflamed surfaces.
A. S. French, M.D., Lawrence, Mass.

It is but just that I should attest my satisfaction with the use of Resinol. It is a marvel of efficacy in Pruritus Ani. In relief of soreness, due to scalding from acute Nasal Coryza, it acts like a charm.
J. H. Thompson, M.D., Goshen, N.Y.

Resinol is by far the best application I have ever used in a practice of 48 years for the diseases recommended. A case of Eczema commencing on the scalp and extending over the entire face and which had been under the treatment of various physicians with no apparent benefit, was completely cured by it in less than two weeks.
J. J. Worthy, M.D., Lavalle, Wis.

I am very much pleased with the effects resulting from the use of Ung't Resinol in cases of Itching Piles, Pruritus Ani, and Vulvae, Eczema, Erysipelas, &c. In fact it is the remedy "par excellence" in all cases where there is a Congested or Hyperaemic condition of the capillary Blood Vessels. C. D. Smith, M.D., Atlanta, Ga.

I frequently prescribe Resinol, and am well pleased with its work. It has proved very useful in many forms of eruption of the skin, and especially so in Pruritus Vulvæ or Ani, and in Eczema of other parts of the body.
Lucy Hall Brown, M.D., Brooklyn, N. Y.

I take pleasure in stating that I have found Unguentum Resinol almost a specific for Pruritus Ani, Itching Piles and Marginal Eczema.
Henry Hug, M.D., Detroit, Mich.

Resinol is a harmless antiseptic and a true skin anæsthetic, absolutely non-irritant and non toxic (free from lead, mercury, or cocaine), can be applied to mucous, excoriated or denuded surfaces of any extent at any age without fear of untoward results, and is not contra-indicated by any internal medication that may be deemed advisable.

Resinol is put up in *one ounce* jars at 50 cts. each, and can be obtained at any drug store. **Sample** sent **free** on application, or **one** regular size jar for trial on receipt of 25 cents.

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This book will save you hundreds of dollars. If you are thinking of building a house you ought to buy the new book, PALLISER'S AMERICAN ARCHITECTURE; or, Every Man a Complete Builder, prepared by Palliser, Palliser & Co., the well-known Architects.

There is not a Builder, or anyone intending to build or otherwise interested, that can afford to be without it. It is a practical work, and the best, cheapest and most popular book ever issued on Building. Nearly four hundred drawings. A $10 book in size and style, but we have determined to make it meet the popular demand, to suit the times.

It contains 104 pages, 11x14 inches in size, and consists of large 9x12 plate pages, giving plans, elevations, perspective views, descriptions, owners' names, actual cost of construction, no guess work, and instructions How to Build 70 Cottages, Villas, Double Houses, Brick Block Houses, suitable for city suburbs, town and country, houses for the farm, and workingmen's homes for all sections of the country, and costing from $800 to $6,500; also Barns, Stables, School House, Town Hall, Churches, and other public buildings, together with specifications, form of contract, and a large amount of information on the erection of buildings, selection of site, employment of Architects. It is worth $5 to anyone, but we will send it in paper cover by mail, postpaid, on receipt of $1.00; bound in cloth, $2.00. Address all orders to

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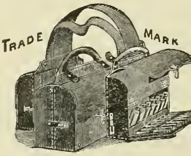

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DOCTOR

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Aseptolin-Edson.

As before stated the basis of the difference between Aseptolin and the serum preparations for hypodermatic treatment of Tuberculosis lies in the fact that in the former preparation we have a solution of known chemical composition having the advantage of constant strength and capable of being continuously prepared without variation in composition or strength, while in the latter fluids the composition is as yet far from being understood and they are not under control, as to their strength and composition remaining constant under different conditions arising in their preparation.

Aseptolin when properly injected into the tissues produces little or no irritation and there is consequently no danger of such an abscess as frequently results from the hypodermatic injection of other fluids.

Chemically speaking Aseptolin is a solution containing purified phenol and a small percentage of pilocarpin-phenyl-hydroxide, and may be represented by the formula $C_{11} H_{16} N_2 O_2–OH–C_6 H_5$, in water.

In this treatment the phenol solution enters directly into the blood circulation and comes into intimate contact with the bacilli in such form and strength as to be powerfully antiseptic and deadly to them, aborting at once their propagation and growth in the system. When this step is accomplished the fight is half won, but it must not be forgotten that, when lung tissue has been lost and degenerative changes have occurred in cases of consumption, the general treatment, the attention to the condition of the stomach, the diet, and exercise are of extreme importance.

The general effects produced by the injection of Aseptolin aside from its antiseptic properties, as noted by Dr. Ransom of Clinton Prison, were: First, the regulation of the heart's action. Second, reduction of temperature. Third, stimulating tonic to the nervous and muscular systems. Fourth, sleep producer. Fifth, improves appetite and digestion and increases weight. Sixth, lessens cough and night sweats. Seventh, tends to lessen the elimination of albumin.

Indeed I am perfectly satisfied that it is an efficient remedy in septicæmia, and especially is this action manifest in the secondary suppurative process of advanced phthisis, all septicæmic symptoms rapidly abating under its use.

Back Numbers.

Carron Oil, Iodoform and Picric Acid are back numbers in the treatment of burns. Carron Oil possesses no antiseptic qualities whatever, while Iodoform owing to its strong toxic effects and odor is very objectionable to the patient, and in some cases dangerous to use.

In regard to treating burns with picric acid, its disadvantages are staining of the hands and bed clothes, and its utter uselessness in allaying the inflammation or assisting in granulation. Then again: Walther in the Gazette, Hebdon de Medicine et de Chirurgical, reports a case of two children he treated for burns with compresses of picric acid, in which there was pain, severe smarting, and vomiting. A second application was made with same result, and this mode of dressing had to be discontinued.

In Unguentine we have a thoroughly antiseptic, healing and restorative dressing, non-toxic, inodorous and clean. It readily subdues inflammation, and assists in granulation, and was used in the hospital barracks at Key West, Florida, where the wounded soldiers of the Maine were sent for treatment from Havana.

Hints in the Treatment of Subinvolution.

Among the conditions concerned in the causation of uterine diseases, subinvolution is one of the most frequent and important. The reason for this is obvious; if after childbirth or miscarriage, the uterus does not undergo completely the normal retrograde process, if it remains enlarged engorged with a hypertrophied mucous membrane, inflammatory changes are readily developed, and endometritis, displacements, and serious pelvic disease may result. One of the chief obstacles to efficient local medication has been the lack of a topical remedy which could be safely entrusted to the patient. This want has now been fully supplied in Micajah's Medicated Uterine Wafers. These wafers are cleanly, unirritating, easily applied, and their ingredients exert a depleting effect upon the engorged mucous membrane of the uterus; establishing normal circulation and thereby causing the absorption of exudates into the tissues, and aiding the natural process of involution.

Removal Notice.

The well-known house of Victor Koechl & Co., Importers of Medicinal Preparations, such as Antipyrine, Lanoline, Behring's Antitoxine, Argonin, Orthoform, etc., etc., announce their removal from No. 79 Murray Street to the new and modern six story building, No. 122 Hudson Street, corner of N. Moore Street. The necessity of obtaining larger and more commodious quarters and better shipping facilities is the reason for making this change.

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The Possibilities of Antitoxin in Diphtheria.

George Suttie, M. D., (Louisville Medical Monthly) says: There is no difference of opinion now among medical men regarding the efficiency of diphtheria antitoxin. Statistics have abundantly proved the decreased death rate resulting from its use, although there may be found an occasional doubter who refuses to believe any kind of evidence regarding this new remedy.

I have no intention in the following to do more than ascertain from the statistics at my command what is the percentage of deaths that has been observed in diphtheria under the use of antitoxin—being prompted to do so by a statement made by one of the speakers at the Sanitary Convention held lately in the city of Detroit. It was then said that the use of antitoxin had established an expectancy of from 13–14 % as a death rate, instead of the old time rate of 30 % and over without its use.

It is hardly necessary to make the statement here, but it is unhesitatingly reiterated that antitoxin has decreased the mortality of the disease under consideration. But was the death rate mentioned a fair average? Does it represent the best obtainable from antitoxin? The writer thinks not. The percentage given was ascertained to be the death rate observed in the entire city of Detroit during the period of the first few months' trial, and where the greater number of cases occurred among the careless or unhygienic poor, antitoxin being furnished in these cases gratuitously by the city.

To those familiar with the squalor of the poor in a large city it is not necessary to say that any medicament for any disease whatever does not receive its most favorable test under the conditions which obtain among this class of our population. It is certainly much in its favor that it was observed to be of service at all in the midst of so generally forbidding environment. Antitoxin must be used early in the diphtheritic attack, at least before the fourth day, to get the best results—so accurate hospital observations have taught us—and this fact physicians themselves did not realize at first.

The class of people, however, of whom we speak are proverbially the slowest to call a physician, even if it be the city physician, whose service is without cost to them, and it frequently happens that their call for help is too late for antitoxin to save the cardiac centers from involvement in the general toxemia. What percentage of deaths, then, may be expected from the use of antitoxin in diphtheria under hygienic conditions, and with the antitoxin administered so soon as diagnosis is made?

Having had something to do with the introduction of antitoxin for the use of the Contagious Department of Harper Hospital of this city, and having watched its administration from the beginning, the writer believes that a very much better percentage of result is attained with the early use of antitoxin in situations where hygienic conditions prevail, such as are found in a well-conducted hospital or even in the average private practice.

Antitoxin was first used in Harper Hospital in the fall and winter of 1894 in a sporadic tentative way. Forty-four cases of diphtheria were treated with the Aronson and Behring's serum, with four deaths (exclusive of three moribund on admission) and a death rate accordingly of 9.1 %, when it happened that the supply of these became exhausted. At this juncture Parke, Davis & Co.'s diphtheria antitoxin was employed and found to be fully equal to any of the serums which had been previously employed; indeed, this is putting it too mildly, for not only did fewer disagreeable sequelæ follow its hypodermic administration, but cases progressed manifestly better under it. Thus in the remaining period of 1895 there were 25 cases, all of whom were treated with this serum (with exclusion of one moribund on admission). There was one death among these, death rate accordingly being 4.1 per cent.* Four were tracheotomy cases with four recoveries.

In 1896 there were 112 patients admitted to the diphtheria ward of the Contagious Hospital, 12 being subjected to intubation, 6 to tracheotomy, with only five deaths, "three of these being moribund cases when brought to the hospital, dying within a few hours of their arrival."† There was, therefore, a mortality of 1.8 per cent. These cases also received the Parke, Davis & Co.'s serum.

For the present year, 1897, up to December, there have been treated 90 cases of diphtheria in the hospital, with 6 deaths. One case was certainly moribund on admission, another may be called doubtfully so, but without excluding the latter, the death-rate was 5.6 per cent. The antitoxin used was the same.

The notable diminution in the death-rate as above given led the Detroit Board of Health to decide to furnish diphtheria antitoxin gratuitously to patients too poor to pay for it, this also including patients under charge of the city physicians, poor patients at Harper Hospital sent there by the Board of Health, at the Women's Hospital and at the Protestant Orphan Asylum. This was done from May 1, 1896, and the number of patients so treated up to February 28, 1897, close of the official year,[‡] was as follows:

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*Vide Therapeutic Gazette, February, 1896, detailing these cases.

†Harper Hospital Bulletin, February, 1897.

	Cases.	Deaths.	Mortality Rate.
With Antitoxin...	374	47	12.56 per cent
Without Antitoxin	467	163	34.90 per cent

In continuation of this series of observations are the following results from figures not yet made public, but kindly furnished me by the Board of Health. From March 1, 1897, up to December, the following cases came either under the notice or care of the Board:

	Cases.	Deaths.	Mortality Rate.
With Antitoxin...	305	32	10.49 per cent
Without Antitoxin	632	192	30.39 per cent

The antitoxin employed by the Detroit Board of Health has been from the first that of Parke, Davis & Co.

These figures go to show that as experience in its use accumulates, and as both medical men and the public at large see the advantage arising from the use of atitoxin early in the diphtheritic invasion, there is attained a continued and steady improvement in results.

With patients in comfortable circumstances, assured of careful nursing, conscientious isolation, and the administration of a reliable antitoxin, there is very much to encourage the profession to expect a very close approach to the Harper Hospital figures—that is to say, a percentage of deaths not to exceed 6 or 7. This would certainly lift diphtheria out of the bad repute it has had hitherto of being one of our most fatal diseases.

Western Ophthalmologic and Oto-Laryngologic Association.

The third annual meeting of the Western Ophthalmologic Association was held in Chicago, April 7th and 8th, 1898. The address of welcome was made by Dr. F. Henrotin, President of the Chicago Medical Society, who, in a felicitous speech, extended to the members the hospitalities of the city of Chicago. Dr. A. Alt, of St. Louis, responded for the Association. The annual address was then read by President B. E. Friar, of Kansas City, Mo. After the usual routine business had been concluded, a scientific communication was read by Dr. Herman Knapp, of New York City.

The Ophthalmologic and Oto-Laryngologic Sections each held five separate and two joint sessions, many articles of interest being read and discussed. The last joint session was occupied with the exhibition of clinical cases.

The committee of arrangements, of which Dr. J. E. Colburn, of Chicago, was chairman, was unremitting in its attention to the guests, and nothing was spared that would contribute to the entertainment of the visitors. Thursday evening the members were invited to the hall of the Athletic Club, where a special program had been arranged for the entertainment of the members.

The following officers were elected for the ensuing year:

President, Dr. Elliott Colburn, of Chicago; first Vice-President, Dr. W. Schepdegrell, of New Orleans; second Vice-President, Dr. Casey A. Wood, of Chicago; third Vice-President, Dr. H. Gifford, of Omaha, Neb.; Treasurer, Dr. W. L. Dayton, of Lincoln, Neb.; Secretary, Dr. F. M. Rumbold, of St. Louis, Mo.

New Orleans was unanimously selected for the next meeting, which will take place just before the Mardi Gras of 1899, thus allowing the members to conclude their scientific session with the gaities of the carnival season.

A Reliable Food.

IMPERIAL GRANUM has won the confidence of physicians because many years of clinical experience have proved it to be a form of nourishment that is acceptable to the palate and to the most delicate digestion at all periods of life.

It is successful, not only as an aliment for children, but its rare nutritive excellence in inanition due to mal-assimilation, chronic, gastric, and enteric diseases, has been incontestably proven; often in instances of consultation over patients whose digestive organs were reduced to such a low and sensitive condition that the IMPERIAL GRANUM was the only nourishment the stomach would tolerate, when life seemed depending on its retention.

A preparation of Cod-liver Oil, combining palatability with reconstructive properties, is one of the vexatious problems of the day. None equals Hagee's Cordial of Cod Liver Oil Comp. in this particular. It is all that the manufacturers claim for it, and I can heartily endorse it.

C. H. POWELL, A. M., M. D.,
Professor of Physical Diagnosis and Clinical Medicine, Barnes Medical College,
St. Louis, Mo.

[‡] Report of Board of Health, Detroit. Mich., or 12 months, ending February 28, 1897, p. 8.

Disinfection of Entire Buildings by Means of Schering's Formalin Disinfector.

On Saturday, Feb. 12, 1898, the Schering factory of Berlin, effected a disinfection upon a large scale at Potsdam. The Schering people had been asked by the Royal Buildings Commissioner Allihn to disinfect an entire hospital, which it was designed to transform into a Royal Military Orphanage.

The building was two stories high and about seventy meters (230 feet) in length. Each floor was divided into two parts by a longitudinal hall. There were two large separate staircase buildings and about fifty rooms, amongst which were several dormitories about twenty-five meters (82 feet) in length. The house had two fronts both of which were provided with many windows.

The disinfection of the rooms one by one would have taken a great deal of time. It was therefore decided to disinfect the entire building at once. The cubic contents of the whole were about 6,000 cubic meters (211,893 cubic feet).

The main doors were closed and all their orifices sealed; the stove openings were shut up. The windows, though of old model, closed tightly, and did not require sealing. All the inside doors were opened, so as to make one room of the building. Sixty-two Formalin Disinfectors were then placed in the rooms and halls of both floors, the apparatus itself being in each case placed next to the spirit lamp. Two workmen on each floor placed the apparatuses in position and set them going. At a given signal each workman filled his disinfectors with alcohol and formalin pastils. In all, there was used $12\frac{1}{2}$ kilo ($27\frac{1}{2}$ pounds) of formalin pastils. At a second signal all the lamps were lighted; and at a third one all the receivers filled with pastils were placed upon the lamps.

Arranged in this manner, the entire manipulation occupied 25 minutes. The workmen left the building through a door left open for that purpose, without being in any way incommoded by the Formalin odor. This door was then sealed. The workmen then left.

Within two hours, as could be seen from the outside of the building, the lamps had all burnt out. As the building was not needed immediately, the vapors were allowed to act for 48 hours. When the building was entered at the end of this time a very intense Formalin odor was perceptible in all parts of it.

This entire process of disinfection was so extremely simple that none of the other methods can, in our opinion, compete with it.

Disinfection of the entire building at once could hardly have been effected with the Trillat apparatus; it would have been much more expensive and troublesome, would have taken much more time, and would have required a far greater number of assistants.

The Trillat apparatus holds 3 liters ($3\frac{1}{6}$ quarts) of Formalin, producing at the most 1,200 grams ($2\frac{2}{3}$ pounds) of formaldehyde; so that ten of these very expensive apparatuses, which require constant supervision, would have been needed. Each single apparatus would have had to have a separate entrance into the building for its tube.

Apart, however, from the whole complicated mechanism and the attention and care required for the use of the Trillat apparatus, and also from the much larger cost entailed by its use, it could not possibly effect such a thorough distribution of the formaldehyde vapors and so far-reaching a disinfection. The formaldehyde would only reach the interior of the building from one or more outside points; whilst the Schering apparatuses were distributed throughout the entire building. It is very evident that the formaldehyde developing from 62 centres scattered throughout the space to be disinfected is much more thoroughly and evenly distributed than when it comes from one or a few points. Besides this purely mechanical advantage, the construction of Schering's apparatus permits the formaldehyde to be much better distributed than can ever be the case with the Trillat apparatus. The formaldehyde vapors rise from Schering's lamps in a superheated state, in real gaseous form. From the Trillat apparatus they issue fairly well cooled, in the shape of a cloud. This is readily understood from the fact that they are developed under pressure, and expand and cool off when they issue from the apparatus. Their temperature about 10 centimeters (four inches) from their point of exit from the apparatus is under 40 C. (104 deg. F.), so that the hand can be held in them without discomfort. The entire Trillat apparatus is therefore badly constructed. That the formaldehyde does not issue from it in gaseous form is shown by the fact that the ground in front of the opening is always wet. Hence in large areas there cannot possibly be a thorough circulation of the formaldehyde vapors. In smaller areas this is not so important; but for such rooms—of say 100 cubic meters (3,531 cubic feet) area—the Trillat method is much too troublesome.

The test objects (staphylococci) placed in the building during the disinfection were of course found entirely sterile after it was completed.

HYDROZONE

(30 volumes preserved aqueous solution of H_2O_2)

IS THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER.
HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

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IS THE MOST POWERFUL HEALING AGENT KNOWN.

These Remedies cure all Diseases caused by Germs.

Successfully used in the treatment of Gastric and Intestinal Disorders (Chronic or Acute):

DYSPEPSIA, GASTRITIS, GASTRIC ULCER, HEART-BURN, CONSTIPATION, DIARRHŒA, Etc.

"Half an hour before meals, administer from 4 to 8 ozs. of a mixture containing 2 per cent. of **Hydrozone** in water. Follow after eating with **Glycozone** in one or two teaspoonful doses well diluted in a wineglassful of water."

Send for free 240-page book "Treatment of Diseases caused by Germs," containing reprints of 120 scientific articles by leading contributors to medical literature.

Physicians remitting 50 cents will receive one complimentary sample of each "Hydrozone" and "Glycozone" by express, charges prepaid.

Hydrozone is put up only in extra small, small, medium, and large size bottles, bearing a red label, white letters, gold and blue border with my signature.

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Sold by leading Druggists. Avoid Imitations. ☞ Mention this Publication

Typhoid Fever. Many physicians believe that typhoid fever cannot be aborted. Other physicians know by experience that it can be aborted, and that the agent to accomplish this result is that strictly ethical preparation known as ***Viskolein.*** "The abortive properties which it possesses evidently lie in the complete inoculation of the blood with an antiseptic that will render the blood an unfertile field for the propagation of germs or the growth of disease ferments."

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Viskolein is an antipyretic, an antiseptic, and a stimulant. If used with proper attention to details, the temperature of the patient will be rapidly, safely and permanently reduced, while the peculiar antiseptic properties of the remedy destroy the bacteria which cause the fever. Recovery must necessarily follow. ***Viskolein*** is one of the real advances in medicine that mark the close of this century. ***Viskolein*** is always indicated in fevers of all forms—*pneumonia, influenza, pyemia, septicemia,* and all other *zymotic diseases.* For formula, literature and clinical reports, address

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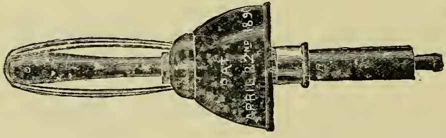

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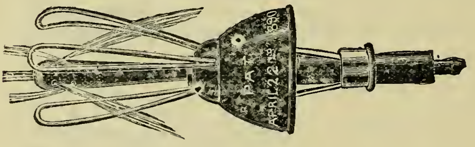

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The Liability to Cramp After Sleep.

The editor of the Archives of Surgery, Jonathan Hutchinson, says:

It is, I suppose, well known that the state of sleep predisposes to cramp in muscles. The exciting cause is probably always muscular action. Of all the muscles in the body the gastrocnemius is probably the one most prone to it. The usual time for its occurrence is just after waking in the morning. It may, however, in restless sleepers who move their limbs in bed, come on during sleep and put an end to it by the pain caused. Those liable to cramp in the calf must be very careful as to movements of their legs just after waking. When once the sleep state has passed off and the muscles are, so to speak, thoroughly awake. there is comparatively little risk of its coming on.

I was explaining the above to a patient who had suffered much from cramp, when he replied: "Yes, I have found that out for myself, and I am so determined to avoid bending my legs soon after waking, that I always take care that the bed clothes are not tucked in, so that I can slide out of bed feet first and so keep them straight."

Distemper as a Cause of Puerperal Fever.

O. Beven (British Medical Journal), believes that the virus of distemper in dogs may be contagious to human beings, given a suitable nidus, and cites the following case in the wife of a kennelman whose dogs were suffering from distemper. Labor had been without accident and the puerperium progressed satisfactorily till the evening of the fourth day, when the patient had a shivering fit followed by a very restless night. The next day she was restless, had a dry tongue, a temperature of 104.2 degrees and a pulse of 132. There was no uterine tenderness, no splenic enlargement, the os was normal, the lochia sweet, and the milk flowing freely; there was slight constipation. It was learned that the husband, contrary to instructions, had come from the kennels on the third day, and had sat by his wife's bedside during the evening and slept upon the bed that night. Treatment consisted of a saline purge, quinine and promide of potash, and syringing three times daily with Condy's fluid. Delirium set in, finally taking on a low, muttering form, and she gradually sank, dying at last on the twentieth day. Throughout there were no local symptoms, and the case appeared to be simply one of pyrexia. The drainage of the cottage and kennels was perfect, and no connection could be traced between this case and any other of puerperal fever or of typhoid. It seems, however, that the disease must have been puerperal fever, caused by the organisms of distemper.

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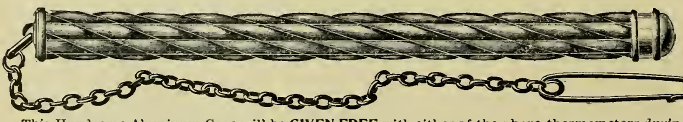

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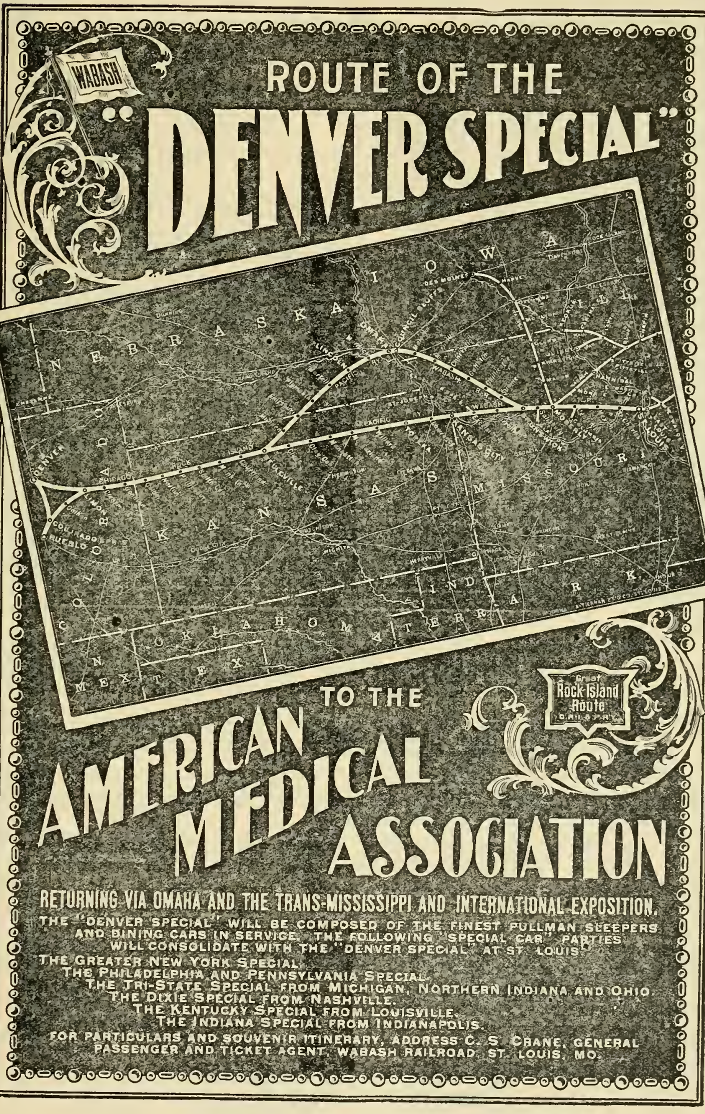

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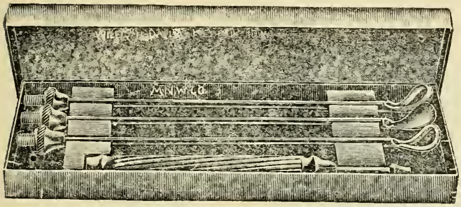

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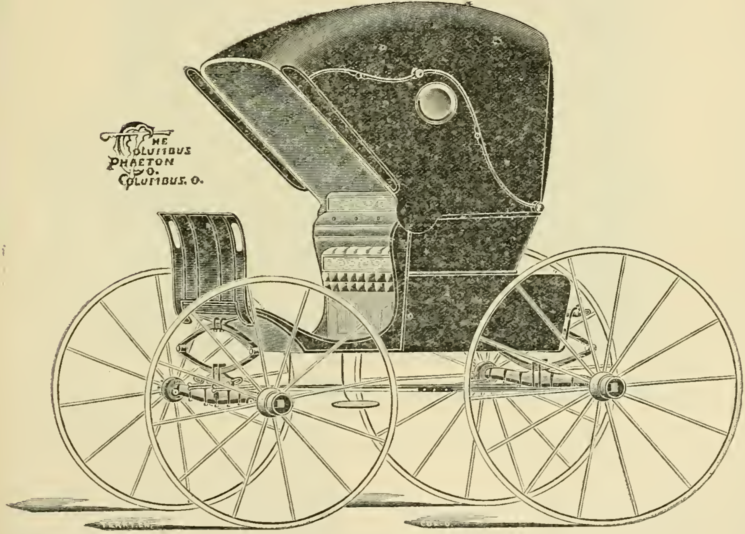
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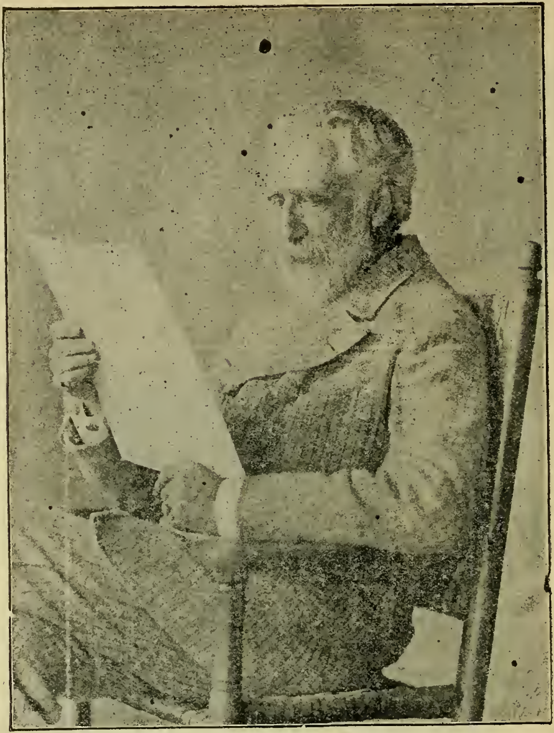

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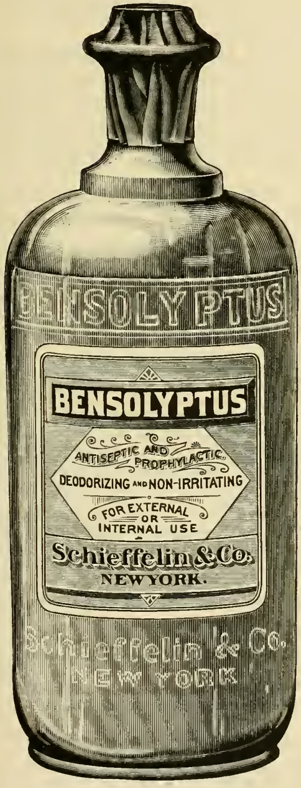
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Dr. E. G. WHINNA, Physician to the Philadelphia Home for Infants, in an article entitled "Betanaphtol-Bismuth; an Ideal Remedy in Diarrhœal Diseases," published in the *Hahnemannian Monthly*, March, 1898, says as follows:

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REYNOLD W. WILCOX, M. D., LL. D., Professor of Medicine and Therapeutics at the New York Post-Graduate Medical School and Hospital; Visiting Physician to St. Mark's Hospital, in an article entitled "The Newer Preparations of Bismuth," published in the *Medical News*, July 31, 1897, arrives at the following conclusions:

1. That the use of the organic in place of the inorganic bismuth compounds should be insisted upon.
2. That the **compounds of bismuth with betanaphtol, phenol, and tribromphenol, are remedies which produce practical intestinal antisepsis.**
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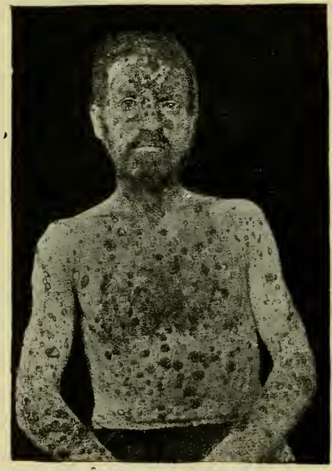

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Try it on ***Chronic Ulceration,*** in connection with your antiseptic and stimulating treatment (which affords no nourishment) and prove the certainty and power of topical blood nutrition, abolishing pus, stench, and PAIN, and healing with magical rapidity and *finality.*

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Try it on ***anything,*** except plethora or unreduced inflammation; but first take time to regulate the secretions and functions.

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2d. Raising and lowering without revolving the upper part of the chair.—Fig VII.
3d. Obtaining height of 39½ inches.—Fig. VII.
4th. As strong in the highest, as when in the lowest position.—Fig. VII.
5th. Raised, lowered, tilted or rotated without disturbing patient.
6th. Heavy steel springs to balance the chair.
7th. Arm Rests not dependent on the back for support.—Fig. VII—always ready for use; pushed back when using stirrups—Fig. XVII—may be placed at and away from side of chair, forming a side table for Sim's position—Fig. XIII.
8th. Quickest and easiest operated and most substantially secured in positions.
9th. The leg and foot rests folded out of the operator's way at any time—Figs. XI, XV and XVII.
10th. Head Rest universal in adjustment, with a range of from 14 inches above seat to 12 inches above back of chair, furnishing a perfect support in Dorsal or Sim's position.—Figs. XIII and XV.
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12th. Stability and firmness while being raised and rotated.
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15th. Stands upon its own merits and not upon the reputation of others.

Fig. XVII—Dorsal Position.

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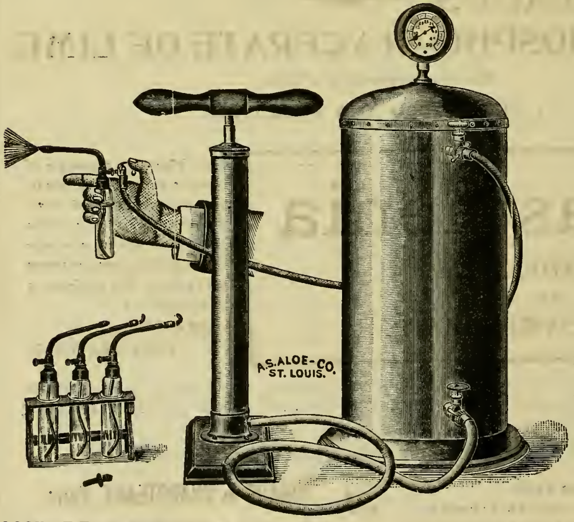

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The Charlotte Medical Journal.

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Catarrhal Dysentery—Its Ætiology, Symptoms and Treatment.*

By Dr J. T. Sevier.

Catarrhal dysentery is an inflammation of the mucous membrane lining the rectum and colon, and sometimes extending into the ileum, characterized by frequent desire to defecate, with pain and tenesmus, and the passage of mucus and blood.

It prevails more extensively during the summer and autumn months. Race has no influence and both sexes are equally liable. All ages are liable to have the disease and people of all classes suffer. Bad drinking water is a predisposer. Dyspeptic conditions caused by the ingestion of bad food and unripe fruit is one of the most frequent causes, especially in children. Some authorities claim it is more prevalent in malarial districts; this I cannot vouch for from personal experience. Some of the cachectic states, such as scurvy, gangrenous stomatitis, tuberculosis, and Bright's disease predispose to dysentery and often are the only cause of it.

The symptoms of the acute stage are slight fever, which ranges at first from 102 to 103 degrees; diarrhœa is the most constant initial symptom and at first is not painful.

Usually in 36 to 48 hours the characteristic symptoms appear; abdominal, colicky pains, griping, frequent stools, which may number from seven or eight to over 100 in the twenty-four hours; the evacuation of the bowels is attended by pain and tenesmus. The tongue is furred and moist at first, later it becomes red and glazed. Nausea and vomiting may occur but the patient usually retains nourishment. Thirst is often excessive but tbe constant desire to defecate with straining and tenesmus are the most distressing symptom. The urine is high colored and scanty. During the first day or two the stools consist of more or less mucus mixed with small quantities of fecal matter. After this they become purely gelatinous and bloody and are very small and frequent according to the severity of the case. Towards the end of the week the stools become thicker, more opaque with less blood, and contain a shreddy material, when ulcerations have formed. Sometimes the stools are of a greenish hue and composed almost entirely of mucus. As the disease disappears the stools gradually diminish in frequency, contain less blood and mucus, and more fecal matter.

The chronic catarrhal dysentery usually follows acute, and the symptoms are by no means definite or constant; many of the characteristic symptoms of the acute stage are absent. The tenesmus and severe griping pains rarely occur except in acute exacerbations. Mucus is passed in varying amounts. blood and necrotic tissues are not often found, but in recurring attacks blood, mucus and sometimes pus may appear. The consistency of stool depends a great deal upon the diet, fragments of undigested food are often found in the stool.

Flatulency is often a distressing symptom. Tenderness on pressure along the course of the colon is often found. The appetite is very changeable and digestion disordered. The tongue is not often furred but is glazed and dry and in protracted cases becomes cracked. There is always anæmia and emaciation and we rarely see patients with such ghastly faces as we do in this disease.

The treatment of dysentery should consist first of all in prophylaxis, as we may often avoid acute catarrhal dysentery by energetically treating the simpler forms of intestinal disorders, but it too often happens that disorders of digestion are regarded as trifling, and the family physician is only called in when patient is dangerously ill. In treating dysentery, first remove the cause, as far as possible; rest in the recumbent posture should be insisted upon, and the stools should be passed in this attitude, as any other increases pain and straining. I insist that the use of the bedpan should be ordered and should contain a disinfectant; for this purpose I like chlorinated lime.

The diet in the acute stage should be restricted to milk pasteurized or peptonized, to beef juice or tea, mutton broths, or to whey, and during the convalescence the greatest care should be taken to provide only the easiest digested articles of food. In chronic dysentery diet is perhaps the most important factor in the treatment, as the stools can often be reduced from ten or twelve to three or four in the twenty four hours, by restricting the diet and confining to bed. When the blood and mucus disappears from the stools we may gradually return with caution to a more liberal diet.

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*Read before Buncombe County Medical Society.

There are no specifics, to my knowledge, for this disease, although different people have lauded different remedies, some claiming ipecacuanha as a cure all, while others rely on the administration of opiates, purgatives, or mineral astringents, others using intestinal antiseptics. I have found no two cases that would progress alike on the same treatment. I received no flattering results from ipecac, although I have seen a good many instances where others had cured many cases with it alone. Minute doses of corrosive sublimate is warmly recommended by some. I have had fairly good results from its use, but the drugs which have proven the most effectual and given me the best results are opium and bismuth, with pepsin. Opium should be given in minute doses in the form of morphia hypodermically, to quiet peristalsis and relieve pain the bismuth and pepsin given in large doses, preferably given in combination, the bismuth in half to one drachm doses, the pepsin in ten to twenty grain doses. Of course we get the best results from the administration of bismuth in the subacute or chronic stage.

In my mind the most modern and rational plan of treatment is by topical applications. In the acute stage we meet with some difficulties in this, owing to the extreme irritability of the rectum and the tenesmus which follows any attempt to irrigate the colon; this, however, can be avoided to a great extent by a preliminary injection of a small amount of a 4 per cent. cocaine solution, or a suppository of cocaine and then with a long tube the solution can be allowed to flow in very slowly, and by this means we wash out all of the irritating material and our patient is oftentimes entirely relieved. The patient should be in the dorsal position, with pillow under hips. Some prefer the knee chest position and claim it favors the inflow of fluid. Water, either hot or cold, plain or holding in solution one of the many antiseptics, may be used as the irrigating fluid. Water at the temperature of 100 degrees is very soothing and starch water with laudanum seems to give the most beneficial results in children as they will often rest quite easy just after the irrigation. As the acute symptoms subside the irrigation can be turned into an injection and the bowel distended by fluid. By some this is thought the best method from the beginning. There are several antiseptics or astringents which are used by different physicians. Some using alum, acetate of lead, sulphate of zinc or copper. Bichloride of mercury in solution of the strength of one ten thousandth is employed by a great many.

As I said before the starch water and laudanum has given me the best returns in children; menthol and nitrate of silver in adults and chronic cases. The nitrate of silver, twenty grains to the pint, using from three to four pints, has proven very good in chronic stage, but this is very painful at times and is immediately rejected. Local applications to abdomen are very grateful at times in the form of warm light poultices or turpentine stupes, and for children a spice plaster, not too strong, kept over the abdomen will be very beneficial. Stimulants should be kept up when necessary.

DISCUSSION.

Dr. E. R. Morris.—I was a little late in getting in, but suppose the doctor went over the acute and chronic forms. You cannot lay down any ironclad rules, as Dr. Sevier has stated, in the treatment of dysentery. Remove the irritating cause, whatever it may be, give sedative local treatment, and pay particular attention to the diet. I believe that is the doctor's position.

Dr. Reynolds.—I think the paper has been handled nicely, and does not leave much to say. It covered the ground thoroughly, but I wish to emphasize one point that the doctor mentioned in his paper, and that is the use of menthol as an enema, about thirty or forty grains to the half gallon, used as high or low enema, just as you like, of course high first, would bring out, in my opinion, a happy result every time. When the patient had movements of the bowels give this enema, followed by opium. This was impressed upon me very forcibly in a case in which I was much interested. The patient was very low, and I thought was going to die, and the physician used that, and he could see the change immediately, and the patient began to improve and got well rapidly from that treatment, that is, as local treatment.

Dr. W. G. Brownson.—I would like to know if any one present is able to give any statistics of the relative results by injections and the old fashioned treatment by opiates without the use of injections. I have not seen any severe case of dysentery for a number of years. I know twelve or fifteen years ago we had quite a widespread epidemic of dysentery, and I saw a number of severe cases then, but recently I have seen none that seemed to me to require any active local treatment, and I would like to know if any one could give us statistics as to whether the use of injections, either plain water or containing menthol, or anything else, does very much towards shortening the course of the disease.

Dr. M. H. Fletcher.—I did not intend to say anything at all on the subject, but if I understand the doctor correctly, the most of his cases occur late in the fall or summer. That has not been my experience. The disease occurs as early as May and June, when other stomach and bowel troubles are prevalent, or at any other time, and while there are existing causes, as for instance the irritation from undigested food or cold, from the fact that the disease is communicable there must be some specific germ that brings on most of our cases of dysentery. I have been through two epidemics here. When I first came here we had a serious epidemic which killed a good many people at that time. I believe in ipecac treatment, and I have come to this conclusion : Where it succeeds, it succeeds beautifully, but where it fails, it makes a most miserable failure, and I gave it a fair test and abandoned it. I believe the way to treat it is locally, and I don't believe that medicine has so much to do with it. I believe the disease is a germ disease, and I do not believe you can put anything in that will destroy the germs without injuring the bowels. Most of the cases of chronic dysentery is ulceration of the bowels, and the way to treat it is by local remedies. One to 10,000 of bichloride of lime will not kill a germ. I used to be a very strong advocate of opium in most cases of dysentery. I think the longer you can delay the use of opium the better off you are. A genuine case of dysentery is a disease of ten days duration, and it runs a course like almost all diseases, and I do not believe that any specific remedy is going to cure it. The very fact that every man has a different plan of treatment shows we have not any specific treatment for it, aud I believe in flushing, taking medicine by the mouth and by the enema.

Dr. A. Crawford.—I don't believe the question asked by Dr. Brownson has been answered yet. In my early practice the use of enema was not very much practiced, as I can state from my experience and observation. Many years ago I came in contact with an epidemic of dysentery, and I used the treatment of castor oil and salines and laudanum enema, but a good many cases died, but since this washing of the lower bowels has commenced it has been a great deal more successful. Dr. Sevier, in his paper, made some very good suggestions. One remedy I have used in latter years is about one drachm of sulpho-carbonate of zinc to a half gallon of water, then afterwards used a few drops of laudanum, but I have not used the menthol. The sulpho-carbonate of zinc seems to be an excellent remedy, but I am certainly much pleased with the thorough irrigation of the bowels. I think it washes away the germs, and with the use of the antiseptics I think there is not much danger of losing your patient. I am of the opinion that many a child has died under the influence of an overdose of opiates, because they are so young and feeble they cannot stand the full dose, or you cannot bring them under the influence to allay the irritation.

Dr. D. B. McBrayer.—I cured one case once with sulpho-carbonate of zinc in a tub full of water, and a teaspoon every hour. Some enterprising drug firm sent agents around with the tablets, and the first case I gave to was cured, but I have never seen it have any effect on any other. It is very easy to theorize about these things, and a good deal more difficult for all of us to get to some definite conclusion. As Dr. Fletcher says, many of us use different things, and most of us cure patients, and it is probably hard to know what is absolutely the best treatment, at least we have no specific for it as we have in quinine for malaria. In regard to what Dr. Brownson said I certainly think that flushing the bowels is a great desideratum in the treatment, and it does not matter what you use, unless it is poison, you are going to do them good. Whether it shortens the course of the disease I am not able to say, because I am not able to prognosticate the length the disease is going to run, and if you flush the bowels and your patient gets well and you think you have cured it and shortened the course by several days your brother practitioner may think it has no effect, and I do not know of any way to arrive at a conclusion, but there is one thing of which I am certain, and that is that the flushing of the bowels gives a great deal of comfort to the patient, and whether it cures or whether it does not I think it is certainly justifiable, in fact, I don't think we are justifiable in neglecting it on that account.

In regard to Dr. Reynold's point on menthol, I get better results from that than anything else that I have been able to use. You can flush the bowels with menthol solution, and the patient will immediately tell you that they feel very much relieved ; it imparts a coolness to the lower bowels and a comfort that I have found nothing else will do. In the course of twenty-four hours the thing usually returns, but I flush the bowels again, and it has certainly given me better results than anything I have been able to use. I have never seen very many severe cases. The only death I have ever seen was a visitor here. He had it about two weeks before he came, and he continued to grow worse and died, but I have not seen much of it of late, in fact, not so much of the diarrhœa diseases in adults since we have our system of waterworks more perfected. I remember when we used wells so much, that hardly a visitor came here but he had diarrhœa from several days to a week, but I don't hear anything of that now, and if they come here and take dysentery, it is not the water.

Dr. J. A. Watson.—The paper interested me very much. It is a very interesting subject on account of the occasional prevalence of the disease here. I used to see a good deal of this trouble in South Carolina, where it prevails similar to those cases which are said to prevail in the tropics. This kind of case comes on there with the first hot weather in May. The disease is ushered in by a pronounced chill, followed by hot fever, having all the indications of a general constitutional disturbance, and I am satisfied had its origin in some germ life, and as long as it confines itself to the rectum is amenable to treatment, but when it invades the higher bowels the symptoms become aggravated, with large, bloody stools and collapse in the course of a week or ten days, and the patient dies. I have never found anything in medicines which seemed to do that form of the disease much good. The disease prevails in an epidemic, and is very much more malignant than typhoid fever, and yielded to treatment very badly indeed. I have never seen any of that disease up here. It is possible that malaria may have some effect upon it. I met a case of dysentery here about a year ago, which seemed to be a very mild attack, passing a little bloody mucus now and then, and I prescribed for him, but to my surprise he did not improve. I exhausted my remedies, and he got rather out of patience, naturally, and went off to John Hopkins, with which his brother was connected. He went into the hospital and was there six or eight weeks. They diagnosed the disease as having a germ origin, and he was six or eight weeks, or probably two months in being relieved, and from that case I would draw the conclusion that we must try to find the origin of our troubles as early as possible before we can hope to accomplish very much in the way of a cure. The ordinary sporadic cases of dysentery in this mountain region yield readily to treatment, but I rely largely upon enema, with the saline treatment. I do not believe the patient ought to have the intense suffering that attends in even a mild case of dysentery.

Dr. J. A. Burroughs.—I did not intend to say anything on this paper. I have enjoyed the paper very much, and also enjoyed the discussion. I don't care to enter into the cause of dysentery, and what germ causes it, but I do wish to say something of the treatment. That is the great question that concerns us, and I believe that special attention should be paid to the food. It should be pre-digested, because the digestive organ is not in shape to digest anything. Another point I am thoroughly convinced is that the lower bowels should be kept thoroughly washed out, and that may be done with some alkaline solution, such as soda water, and I think that menthol is a nearer specific than anything we have named. In regard to the remarks that dysentery runs ten or twelve days in spite of any treatment you can bring to bear, I will have to take issue with that, because if you see a cause of dysentery in twelve or twenty-four hours after it is started, and you very often see it in even less time, you give them a large enema, followed by the menthol enema, then give a saline cathartic. After that has passed through give them a hypodermic injection of morphia, and give the bowels a rest, and after they have had an action repeat the morphia, and you will cut the case short. Of course the patient will have to lie in bed and be kept perfectly quiet, and he should never be alllowed to assume the erect posture, and by all means keep all the mucus and debris washed out of the bowels. You will see the temperature go down after these enemas. I am opposed to laudanum and starch enemas. They are absolutely dangerous to your children. There is nothing I have found acted so well in that frequent tendency to strain, after giving them as much morphia as you can with propriety, as to take a little cotton with a solution of cocaine and boracic acid and apply it to the rectum, and even put a little of it up the rectum on the cotton. I hold it there and put some ice to it, and you get the antiseptic effect, and with the ice you get a direct curative effect. I have had the nurse sit for hours at a time with ice pressed against the rectum, and I have found nothing yield such beneficial results as that little solution with ice applied to the rectum. I believe that if dysentery is left alone the majority of cases will get well after running their course, but the wise practitioner is not going to sit down and leave his case to run its course. If he does do it he is not entitled to his fee, and not entitled to a position among the best practitioners.

Dr. W. H. Fletcher.—When I referred to this dysentery which is communicable and epidemic I thought I was making a digression from the doctor's paper. We all know there is another kind of dysentery. I know a good many people who, when they get exhausted, have dysentery as a result of it, and hot water will cure them; there are also people who from a severe cold will have dysentery, and an enema of hot or flushing with hot water will cure that patient. Again, if it is caused by undigested food you have a different thing to treat, and usually when you remove the cause you have cured your patient. A neutral treatment will cure any dysentery due to exhaustion, and that does not run a specific course, but communicable dysentery will almost always run a ten days course.

Dr. J. T. Sevier.—I have enjoyed the discussion a great deal, but I want to refer to Dr. Fletcher's remarks. I agree with him that the dysentery caused by germs will run a course of ten or more days, but I think the catarrhal dysentery can often be cut short if it is properly treated. I have seen more cases of dysentery in July and August and September. As to Dr. Burroughs' remarks on the starch water and laudanum, I don't know how much laudanum he uses, but I have never had any bad results from starch water and laudanum. I have used it in small amounts for children, of course, knowing that children bear opiates very badly as a general rule, but as I said before the menthol and nitrate of silver is my preference in a solution for the rectum.

Report of a Few Cases of Appendicitis with Remarks.*

By S. M. Davega, Chester, S. C.

Case No. 1.—Dr. P., Monroe, N. C., age 37, was taken violently ill Saturday after eating a hearty dinner. The next day, Sunday, at 11 A. M., he entered my sanitarium. He was suffering considerable pain, constipated and occasionally nauseated. Temperature 101, pulse 115. As soon as he was put to bed, examination was made and appendicitis diagnosed. He was at once given a large dose of calomel, followed by salts, which purged him freely. Operation urged, and his wife was telegraphed for. After free purgation Monday morning he felt so comfortable that he was somewhat opposed to operation, but after giving him my experience with like cases, and at the same time making plain to him the dangers of delay, he readily consented to operation. He gave a history of a similar attack though not so severe several months previous to coming to me. Operation was made Monday at 9 A. M. After opening the abdomen, and separating adhesions, the appendix was found post cæcal firmly adherent and sloughing at its base. It was impossible to either ligate or invaginate the stump, as it was so decomposed that it would crumble on pressure. The cæcum was then doubled back upon itself and the stump buried by introducing six Lembert sutures. Thorough irrigation and drainage with complete recovery.

Case No. 2.—Saturday night, December 25th, was called to see Mr. C., who had just returned from a long drive in the country. He was suffering much pain with abdomen considerably distended. After giving an enema and applying hot turpentine stupes he got fairly comfortable. There was rigidity and extreme tenderness in right iliac region. Temperature 100, pulse 110. Diagnosis was appendicitis, and operation urged. This man gave history of a previous attack of sudden and acute pain in right iliac region some months before this, but thought it nothing serious as the pain and soreness soon passed away, although he admits that after this attack he suffered from indigestion and obstinate constipation. His wife, who was visiting in the country, was sent for, and in order that no time should be lost, the next morning I gave him calomel and salts to free purgation, and at the same time restricted his diet to beef tea or chicken broth. His wife, realizing his critical condition, readily consented to an operation. He was at once carried to my sanitarium and an operation made. Peritoneal cavity being opened, I found a mass consisting of bowel and omentum. I at once walled off by means of three gauze sponges the surrounding parts, and began carefully to break up adhesions. Very soon a quantity of offensive pus began to well up which was carefully removed by pieces of iodoform gauze. When all pus was removed, and cavity irrigated, search was made for the appendix, which was found to be gangrenous with a cheesy mesentery firmly adherent to posterior surface of cæcum. Appendix was removed and the stump covered with peritoneal flap. Feeling somewhat anxious about a portion of the cæcum to which the appendix had been attached, I decided to use gauze packing and close only the upper half of my incision. Gauze removed 48 hours after operation, and wound closed by sutures placed at time of operation. His temperature came down to 99 deg. a few hours after operation with a pulse of 80. At the end of 28 days he was at his place of business.

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*Read before the South Carolina Medical Association, at Harris Lithia Springs, April, 1898.

CASE NO. 3.—Last August I received a telegram from Dr. Nesbit to come to Waxhaw, N. C., prepared to operate for appendicitis. When I reached Waxhaw I found that the patient lived some distance in the country. Patient, Mr. H., age 65, weight 200 pounds, had been ill for six days. After examination was made, Dr. Nesbit and myself had to make all necessary preparations for operation. We boiled our water in one of those old time wash pots in the yard. The operation was made in the dining room where there was not a pane of glass in any of the windows. We did no sweeping but thoroughly wet everything with boiling water. I mention these facts to show that clean and complete surgery can be done as well in the farmer's home as in the more elegant operating rooms. As soon as the peritoneal cavity was opened a stream of pus gushed forth. After removing more than a pint of pus, the cavity was thoroughly cleaned with pieces of iodoform gauze and appendix removed, which was sloughing near its base. There was a cæcal perforation which was closed. No traces of mesentery could be found. Peritoneal cavity was thoroughly irrigated with several pitchers of water. As the cæcum in neighborhood of perforation was very dark I decided best to wall off with gauze and close only a portion of my incision. At the end of 72 hours Dr. Nesbit, to whom I am indebted for the after care of the patient, removed the gauze and closed the wound with sutures placed at time of operation. His recovery was quick and complete. Temperature before operation 102, pulse 115. Few hours after operation temperature 99 deg., pulse 90. No history of any previous attack.

CASE NO. 4.—Saturday, January 1st, 4 P. M., was called to see Miss S., age 21. Friday night she had been to an entertainment and ate very heartily. About 2 A. M. Saturday she began to suffer violent pain in stomach. Her aunt, with whom she was staying, gave her mustard and hot water which caused free emesis and also applied hot cloths which relieved the pains somewhat. Soon she began to suffer pain over the entire abdomen, which was considerably distended at time of my visit. A large enema of salts and water was given which thoroughly emptied the lower bowels, and a flax seed and mustard poultice applied to the abdomen made the young woman fairly comfortable. I should have mentioned that before I was called she had taken 40 drops of McMunn's elixir opii in wine glass of brandy. I ordered a Siedlitz powder to be given at 8 A. M. to be followed by 2 grains of calomel every half hour until 3 doses were taken, and as the stomach was very irritable to withhold all nourishment until my next visit at 4 P. M. At time of next visit she was very comfortable and very hungry. On making pressure in right iliac region she flinched and said she was very sore there. She wanted to go to Lancaster on Monday, but I refused. Contrary to instructions, she went to Lancaster, drove 8 miles in the country, when she began to suffer great pain. A physician was called who gave morphine and used hot applications, all of which failed to give relief. She was brought back to Lancaster, where she was attended by Dr. Witherspoon, who brought her back to Chester Saturday night, January 8th. Dr. W. informed me that he had given calomel and salts, and had used an enema, but had failed to get a bowel movement. Shortly after her arrival I was called. I found patient thoroughly under the influence of morphine, at times very much nauseated, and bladder terribly distended, which was relieved by catheter. Her aunt stated that the pain was so intense that two hypodermics of morphine had to be given on the train. Temperate 102 deg., pulse 140. Appendicitis diagnosed and operation urged. Operation was not consented to until 5 P. M. Sunday, when she was brought on a cot to my sanitarium. Peritoneal cavity opened I began search for the appendix, and must confess that I was considerably embarrassed when, after several minutes search, I failed to locate it. Finally I brought the cæcum up to incision and found the appendix buried under the peritoneal covering of cæcum. The serous coat was incised and the appendix ulcerated near its middle and containing several fœcal concretions, together with a small quantity of pus, was removed. The serous coat was stitched back over cæcum with nine fine silk sutures. This patient made a splendid recovery, and is to-day well and happy.

CASE NO. 5.—August 21st. was called to see Mrs. M. R. McL., of Anniston, Ala., age 34. I found her very much nauseated, lower limbs drawn up with pillow under her knees, suffering intense abdominal pains. Hypodermic half grain morphine administered; turpentine enema given, and hot towels applied. For some months she had suffered from very obstinate constipation, bowels only moving when a purgative was taken or enema used. She also stated that for some time everything she took in the way of food would disagree with her, causing fullness in stomach and bowels, and on two previous occasions had suffered severe pain in the region of umbilicus, for the relief of which she had taken elixir of opium. Temperature 99 deg., pulse 100. Vaginal examination proved the uterus and appendages to be perfectly healthy and normal; rectal examination negative. The muscles on the right side of abdomen were very tense. While making pressure over McBurney's point she said, "that is very tender there, but the greatest pain is just below the navel. Right iliac fossa fairly tympanitic, and no tumor could be detected in this region. She being made fairly comfortable I left her for the night. The next morning, August 22d, temperature 100 deg., pulse 115. Abdomen very sensitive to pressure on right side of and just below umbilicus. In order to relax the tense abdominal muscles and make a more thorough examination, chloroform was given. On making deep pressure, I detected a mass just below and slightly to the right of the navel. Finding nothing adnormal about the uterus and appendages and having no symptoms of obstruction, I pronounced hers a case of appendicitis. August 23d, abdominal section was made. Below and to the right of umbilicus, a mass of adherent bowel was found. After carefully breaking up adhesions, an ulcerated appendix was found, the two ends of which were held together by its thickened and cheesy mesentery. Appendix was removed, together with its mesentery, and stump covered with peritoneal flap. All adherent bowel being liberated, the abdominal cavity was thoroughly irrigated and drained. About 15 hours after operation patient complained of pain and distention, which was quickly relieved by introducing rectum tube. Drainage removed 36 hours after the operation. Temperature, 48 hours after the operation, 99 deg., with pulse 80. Bowels moved on the third day with Rochelle salts, aided by enema. Recovery without a bad symptom.

Case No. 6.—July 1st, was called to see Mr. K.. school teacher, Chester, S. C., with the following history: I found a man 48 years old, considerably emaciated, suffering from acute pain and exquisite tenderness on pressure in right iliac region. He stated that, as a rule, he suffered from obstinate constipation, but the day before the present attack of pain he was troubled with diarrhœa. After being relieved of his acute pain by means of turpentine enema, ice bag over seat of pain, and chloroform inhalations, he said: "Doctor, for two years I have been a miserable dyspeptic, have suffered and been treated for frequent attacks of colic. For the past six months the attacks have been more freequent and severe, confining me to bed for several days, when I would be able to be up, but at the same time would suffer considerable abdominal soreness." Temperature 100, pulse 120. Rectal examination revealed nothing, and I don't think it is ever of any diagnostic value except where there is a large abscess which has dissected its way down to rectum. The muscles of the abdomen in the cæcal regions were very tense, and on making pressure over iliac fossa, I detected a marked feeling of resistance. My patient being much reduced in flesh, I, after giving a small quantity of chloroform, readily detected a tumor mass. Diagnosis appendicitis, and immediate operation advised. His brother, Dr. K., of Pineville, N. C., was telegraphed for and operation made July 3d. After liberating adherent bowel, the appendix was found near the angle between the ilium and the cæcum, surrounded by an abscess sack containing about 4 oz. of pus. The general peritoneal cavity being walled off by gauze sponges the abscess was evacuated and appendix removed. In this case the appendix was about the size of my thumb and perforated at its apex. Thorough irrigation and glass drainage. Patient being very weak, one ounce of brandy and four ounces warm saline solution given per rectum every 4 hours while necessary. One hour before operation, temperature 100 deg., pulse 120. Twenty-four hours after operation, temperature 99, pulse 90. Recovery uninterrupted.

Case No. 7.—Mr. E., age 26, school teacher, Chester, S. C. Previous to consulting me this young man had suffered frequent attacks of what he supposed was colic. These attacks of pain had become so severe and frequent that for the past year he had kept constantly in his pocket a bottle of morphine and atropia pellets, and as a consequence had acquired the morphine habit. I attended him in three attacks before he would consent to operation. Operation was made at the beginning of what he considered his twelfth attack. Appendix was found post cæcal, adherent and with a fæcal concretion partially extruded from its apex. In this case the appendix was very short, walls much thickened and hardened. Organ was removed and stump covered with peritoneal flap. This operation not only relieved him of a dreaded disease, but also cured the morphia habit, and he is to-day a prominent minister in the Baptist church.

Recently much has been written concerning the diagnosis and treatment of appendicitis, and while the views concerning the symptoms and diagnosis of this disease are fixed, the same is not true as regards the treatment, as there are many different ideas. The few cases which I present at this meeting differ in type and character, though all were surgically treated, with the same happy results. But as I am aware that there are many advocates for a different line of treatment from that pursued in the above cases, you have my apology for presenting to this intelligent body a subject which has been so frequently discussed. I am thoroughly convinced that the best results are obtained from early surgical interference. In the appendix we have an organ whose anatomical structure prodisposes it to disease—an organ poorly supplied with blood vessels, an organ with a common orifice of entrance and exit, and consequently an organ with poor drainage; in other words, it is a retention tube.

One of the greatest causes of appendicitis is the simple fact that the organ has once been the seat of disease, that is to say that once the mucous lining of the appendix has suffered an attack of catarrhal inflammation, which is the first step in every case of appendicitis; be the cause what it may, an exudation is thrown out, the membrane becomes thickened, and thus the lumen of the organ suffers more or less obstruction with the consequent retention of its contents, whether they be fine particles of fæcal matter or the products of exudation. Are there any known remedies, which when given by the mouth or per rectum will soften the hardened and thickened mucous membrane, relieve the acclusion and effect drainage? I reply "No," but you may be assured that day by day, little by little, will the intestine force more of its contents into this retention tube, which sooner or later will either, due to distention or pressure necrosis result in another and possibly fatal attack.

There is a form of appendicitis called the catarrhal, relapsing or recurrent variety, and no doubt many of you present have seen not a few of these cases. These are the cases that give so favorable results in the medical treatment of this disease. These are the cases that some men claim to cure by Epsom salts, rest, and careful diet. I ask, "Are they cured?" I reply, "No," and beg that you be not deceived by such plausible literature, for purgatives, rest, and restricted diet can no more cure appendicitis than a lens can restore sight to the blind. I grant you that we expect results from the administration of purgatives so far as to help the bowels get rid of gas, fæces, and also help remove the natural products of inflammation, but nothing more.

I hold that appendicitis, penetrating wounds of the abdomen, and ectopic gestation, demand the same prompt treatment. Is these a member of this Association, who would, when called to a gun-shot wound of the abdomen, fold his hands and say, "Wait until peritonitis sets in," and then operate? I reply, "No." Is there a man in this assembled body, who having diagnosed extra-uterine pregnancy in the early months, would say, "Wait until the period of rupture," when the dangers are all increased, then operate? The reply comes that operation should be made at once, while the adhesions are slight and the entire sac can be removed, whieh is a simple and safe operation in experienced hands. The same is true of appendicitis, for in its early stages we have a disease that is limited or confined to this organ alone; but by delaying a few days, or even a few hours, you may and do have a disease that has no limit save the walls of the peritoneal cavity.

Every member of this Association must appreciate the fact that no living man can foresee pathological conditions in the abdomen, consequently it is impossible to tell how or when a given case of appendicitis will end; and for this reason he has no right to jeopardize human life by delaying operations when he has unmistakable symptoms of this disease before him. Statistics show that the mortality of early operations for appendicitis is very small in experienced hands, and I can assert most positively that the dangers attending operation are nothing compared to those that may and do threaten during delay. Those who have devoted much time and study to this disease, those who have watched patients said to have been cured without operation, know that in a great majority of instances they finally go into other hands, and either die in an attack, or escape by operation. There is on record a case of a very wealthy gentleman travelling around the world, who had twenty-four attacks of appendicitis in various parts of the world. He was treated by twenty-four different physicians, some of whom declared him cured, and were so reporting his case, while at this very time he was recovering from an operation made by Dr. Agnew in his twenty-fifth attack.

It is wrong for a physician or surgeon to assure a patient that he has been cured of appendicitis other than by operation, for relying upon the opinion of his attendant, the patient commits errors in diet and will venture on long journeys when he will most surely be seized with an attack, and very likely be placed in a hopeless condition before aid can reach him. Or should he be fortunate enough to have surgical assistance at his command, he has been taught to defer operation as a last resort. For instance, a little over one year ago, a young Georgian left home for a pleasure trip to New York. At Elberton, Georgia, he ate a very hearty dinner, and by the time he reached Chester at 7 P. M. the same day, he was so ill that he was obliged to stop over. I saw him one half-hour after his arrival at the hotel and diagnosed appendicitis. Just two months before starting from home he had been treated for appendicitis and pronounced cured by his attending physician. I at once telegraphed for his parents; they came early next morning with positive instructions from the family physician to have no operation made. The boy daily grew worse, and he, as well as myself, daily plead for operation, which his parents bitterly opposed. Finally, on the fifth day of his illness, Dr. Holmes, of Atlanta, was called. He advised immediate operation. I opposed operation at this time as the patient was bathed in a cold perspiration with a pulse 160, and I felt sure operation would only hasten the end. However, at 10 P. M., at the earnest request of the hope-forsaken parents, operation was made. There was free pus in the abdomen, appendix gangrenous, and cæcum perforated. The end came fourteen hours after operation.

Curing appendicitis by medicines is to me as fallacious as the doctrine of curing pustubes by dilating, curetting, and gauze packing the uterus. Says an able surgeon, who has done much to perfect appendicial surgery: "The idea is worthy of no consideration, it has no common sense to originate it, it has not a surgical argument to support it. Suppose the roof of this house was on fire, and the fire department would rush in and begin flooding the basement with water, what would you say? I am sure you would cry out to them "Stop, the fire is above, beyond—you are wasting valuable time and can accomplish nothing by flooding the basement." So it is with appendicitis. While you are flushing out the alimentary canal with purgatives, and pouring lubricating oils into the rectum, valuable time is being lost; for the inflamed and adherent, and possibly sloughing appendix is beyond the reach of your ill-directed treatment, and a cure cannot be effected.

In conclusion, gentlemen, I beg that you will not consider me an advocate of needless mutilation of the human body, but when a diseased organ threatens life, or places the patient in such a position that life becomes a burden, or prevents the performance of the necessary duties, I can imagine no greater privilege than that of the surgeon to remove the offending member and restore his patient to a condition of safety and usefulness.

To remove blood stains apply acetic acid or tartaric acid.

Fever.*

By DR. JAMES SAWYER, Asheville, N. C.

Fever, as we all know, is the term commonly applied to an elevation of the body temperature above the normal standard, which is 98.6 deg. F, though it may vary from one deg. above to one-half deg. below this and still be normal, for we know that after meals our temperature is liable to be about 99 degrees, and upon rising about 98 degrees; also that nervous excitement sometimes causes an elevation of temperature which is not truly fever, so the range is from 98 to 100 degrees in *exceptions*. (A. Alexander Smith, N. Y.)

97 degrees is sub-normal, as in an attack of Ptomaine poisoning, Cholera Morbus, etc.

95 degrees and below is collapse, and then the pulse is liable to be very feeble.

100 to 101 degrees is slight fever, 104 to 105 degrees is high (or severe) fever, and 105 degrees and higher is hyper-pyrexia. A temperature above 108 degrees is very serious indeed, and liable to cause brain diseases and serious degenerations, but for a short time it may be withstood and the patient still recover. The temperature taken in the Axilla is not trustworthy. It is best to take it in the mouth or rectum.

Continued fevers are all fevers which do not strike normal in the twenty-four hours. In eruptive fevers, the eruption is a prominent and characteristic feature of the disease. In periodic fever the periodicity is characteristic. In remittent fever the temperature never strikes normal, while in intermittent fever it is at times normal during the twenty-four hours.

The natural heat of the body depends upon some regulative influence, which is most probably exerted from the nervous system, the centres of which are just *above* the Medulla Oblongata and near the Corpus Striatum, also on that part of the brain just *below* the Medulla Oblongata which presides over the Vasso-Motor system. So, in some cases of hysteria we have a fever, which is due to the irritation of the nerve centres by some morbid agent being carried to these centres through the circulation and there setting up the irritation. We may get a very high temperature this way, the highest on record, from such a case, being 122 degrees. (One case of 149 degrees is recorded, but is exceedingly untrustworthy).

Disturbances of the digestion often produce an elevation of temperature. Irritation of Peripheral nerves also sometimes results in marked elevation of temperature (as from a pin in a binder.) When in Typhoid the temperature gets nearly normal a very slight cause will run it up several defrees.

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*Read before the Buncombe County Medical Society, March 21st, 1898.

An elevation of temperature accompanies all inflammatory diseases due to infections (or toxins). Excreta from certain bacilli, getting into the circulation and thence into the nerve centres, cause irritation of the nerve centres which preside over the heat of the body and so cause a fever.

This is the explanation of all specific fevers. Similarly in Septicæmia. Chemical poisons produce a similar elevation of temperature. We get a *marked* elevation of temperature in Insolation, and very rapidly too, which makes sun-stroke so dangerous

Accompanying fevers of any kind are phenomena which differ; and are not the same in all fevers or in all persons; but there are some which are pretty constant. These are: Chilly sensations with a general feeling of discomfort, and a *headache*, (especially in Typhoid); Increased rapidity of breathing, (because of the increased necessity for oxygen) and increased rapidity of the pulse. Loss of appetite, the tongue is coated and red at the edges. There is a diminution of the *fluids* of the body, The mouth becomes dry. There may be nausea and vomiting, but these are not always present.

Constipation usually exists (unless the fever is due to some lesion in the alimentary canal, as in Dysentery, Typhoid, etc., where we have diarrhœa). Muscular pains are sometimes marked. There is a tendency to *yawn*, (especially in children having intestinal indigestion and in malarial fevers). The skin is hot and dry and the face flushed, while there is burning of the eye-lids and eye-balls.

The urine is highly colored and diminished in quantity. A sensation of heat (burning) is experienced in urinating. The urine is exceedingly acid, of high specific gravity (1028 to 1033 or 1035), especially in adults, and may contain albumen (febrile albumenuria). Sometimes there is wakefulness, but again there is frequently somnolency according to the temperament of the patient and kind of disease. Frequently wakefulness is the best sign, as in scarlet fever, diphtheria, etc., and has a great deal to do with the prognosis. Delerium is variable. It is *not* the high elevation of temperature which causes the delerium. It is usually due to the temperament of the patient and the state of his nervous system. In Typhus there is *usually* a delerium which is of a *suspicious* nature. Here some special poison acting on the nerve centres is the cause of the delerium.

Any fever of ten or twelve days or more is liable to come to a crisis or lisis in a profuse diaphoresis or diuresis or in a diarrhœa.

Results of Fever.—If a man has been an alcoholic and develops a fever, he is liable to have bad seqellæ. The integrity of certain tissues, following high temperature, (as in insolation, for instance), is at times involved and injured, and multitudinous degenerations of various kinds are liable to follow, and hence heat-stroke is liable to cause insanity, softening if the brain and death.

Prognosis. Height of temperature is *not always* an indication. A high temperature (104 degrees) together with a rapid pulse (150 and persistent) is *very bad*. In asthenic fever we have a rapid pulse which governs the prognosis. If the temperature remains high, (over 104 degrees) in typhoid for *the twenty-four hours* his prognosis is very bad. It is not so bad in remittent fever if it is below 101 degrees the most of the twenty-four hours.

A rapid rise of temperature in pneumonia is very bad, especially when accompanied by a marked increase in the pulse. If the temperature does not go above 104 to 105 degrees in the afternoon his prognosis is generally good. (We must remember that *in disease*, children have naturally a higher temperature, about two degrees, than adults).

When the temperature is over 105 degrees, for any considerable part of the twenty-four hours, it is very unfavorable. A high temperature with cold extremities *is bad*. A more moderate temperature (below 103½ degrees) with a moderate and fair degree of secretory and digestive power, and an unwavering pulse (under 110) together with the absence of any serious derangements of the nervous system and the absence of any complicating disease, are good indications.

I have been asked the question: "Is fever always undesirable?" Fever is not (generally speaking) an independent disease, as some seem to believe, but it is more of a symptom.

It is the condition which appears only when the system makes its strongest exertions to liberate itself from the disease.

It is now a pretty general belief among those most advanced in the science and study of medicine, that fever is *not* always undesirable, but that the fever assists certain cells and fluids of the body to resist the action of certain germs and so when the *fever* is a *conservative process* it is *not* bad, but is really necessary in the course of some diseases, and it is even to a certain extent a wholesome factor. For this reason it should not be *too much* suppressed with *medicine*, which perhaps is only too frequently done.

A word as to the treatments of fevers in general. I shall summarize it as follows: First neutralize the poison, *if possible*, then promote elimination and secretions. Stimulate under proper conditions. Reduce the temperature *when necessary*. Maintain nutrition, relieve distressing symptoms, obviate complications, counteract local symptoms, and exercise marked care during convalescence. Water, fresh air and cleanliness are perhaps the most potent factors in our therapeutics in the treatment of fever.

DISCUSSION.

At the meeting of the Buncombe County Medical Society, March 21st, 1898, the paper on "Fevers," was read by Dr. Sawyer, and responded to by Dr. E. B. Glenn, as follows:

In some respects I think that the paper was very well prepared, in fact it was a very good one. I have always considered from 106 degrees to 107 degrees high temperature, and as for the duration of fevers, I think it is not so much whether it is so many degrees Farenheit as it is the condition of the patient and the treatment of the fever. Take a fever of 105 degrees; in one of short duration the prognosis is not so serious, but take a temperature of 103, with a fever like typhoid, lasting three or four weeks, it sometimes produces serious effects on the tissues.

As for the treatment of fevers, I think we do harm in not judging the condition and looking into the degrees on the thermometer. We know no drug that produces a low temperature by simply decreasing the heat production. Most of our drugs lower temperature by increasing the heat radiation, at the same time reducing the heat production, and we have another class of drugs which decreases the temperature by increased heat radiation, without any interference with heat production. I do not consider that form of reduction one to be chosen, because the fever will go on just the same.

Dr. G. W. Purefoy.—One of the first statements the doctor made in his paper was that the normal tdmperature was 98.6, and that we might have a normal temperature below that and a normal temperature a degree or more above that. Now, with all due respect to the gentleman, I doubt very much whether that would be true. If the gentleman should come into my office and I should take his temperature and find it one degree above 98.6, I should begin at once to find out what caused that fever. I do not believe that a man in a perfectly normal condition will have a temperature of 99.6. I can see how a man's temperature taken in the axilla or under the tongue can reach 98 degrees. That is very easily understood. I do not believe that an elevation of that kind is a normal temperature, and when we consider it normal it is because we have failed to find the cause of that elevation of temperature. Dr. Glenn, in his remarks referred to the temperature of the prognosis. In my opinion the prognosis in a high temperature depends almost entirely upon cause and duration. The highest temperature I have ever seen in a patient was 108 degrees, and the patient was out at work in ten days. That was malarial fever. If I should see a temperature of 108 in typhoid fever I should not permit my patient to be at work in ten days; I should not expect to see him out in ten days, yet I haxe seen that in malarial fevers.

Dr. C. P. Ambler.—I was a little surprised to hear Dr. Sawyer refer to a temperature between 98 degrees and 99.6 degrees as normal temperature, that is, to consider it normal where he found it as high above 99 degrees as .6 degrees. I believe that there is a standard, and that we have a normal temperature as much below that standard and as much above, but I don't believe tbat we often come across patients who have a normal temperature of 99.6 degrees. I consider a temperature of 99.6 as indicating something abnormal, and I certainly believe in taking the temperature, especially in persons of whom we are suspicious of tuberculosis, I think that the temperature record will give us more of an insight into the true condition of the patient, even before we can get any other symptom as a tubercular symptom pure and simple. I recently had a small child from Detroit come into my office, who has been under the treatment of the physicians there for some time. They claim no cough and no symptom of tuberculosis, and the child was sent here because he had had pneumonia and was run down. I questioned his mother as to whether there had been a record of his temperature taken, and she stated that the physicians had taken it every day and found it normal. I then told her to get a thermometer of her own and take the child's temperature herself, and instructed her how. Between eleven and one, that child's temperature is going to 101½; that has been going on for two weeks, and the child is now beginning to cough. I do believe the child is tubercular. On examining closely I find he has enlarged glands. In taking temperature you cannot judge whether a person has fever or tubercular symptoms by taking the temperature once a day.

Dr. J. A. Burroughs.—Fever, it seems to me, is nothing more than a symptom, in fact, it is a a symptom in almost every disease we have to contend with. It is only a symptom representing tissue metamorphosis of the combustion going on in the body. In sun-strokes you have high fever, in malaria it intermits; in typhoid it seldom leaves until it is gone for good. There is a point I expected the doctor to allude to, which he did not, and it is to a class of diseases which are generally accompanied by fevers, and a microscopical examination shows these fevers, and shows the germs that produce these fevers, and yet the temperature runs a sub-normal or normal course. I think Fisk, of Denver, was one of the first to call attention to this type of fever, especially in old people. He reported a large number of cases of this class. I have noticed several cases, and doubtless you gentlemen have.

There is a special cause of fever; there is a special germ that produces every fever. For my part I do not believe in medication in fever; I do not believe in giving medicines in many cases, but keep the bowels open, keep the kidneys acting, keep the skin acting if you can, but depend upon your ice and your sponge baths, but don't go to packing with quinine and anti-kamnia. I believe that drugs have upset more stomachs and ruined digestive organs and caused more harm than doctors have done good. I am so frequently called to see children whose mothers are giving them calomel and rhubarb, and you stop everything, and wash the alimentary canal, and keep the temperature down by baths and keeping ice to their heads, and the fevers will go down, and give them something to assist digestion and help nature, and the child gets well without any drug store in it.

Dr. J. E. David.—I remember a case of scarlet fever I was called to attend, where the family were poor, and did not understand anything about the treatment. We induced the mother of the child to open the windows. It was in the winter, and the mother was horrified; she thought we were doing the wrong thing because she was cold, and she had shut all the windows and the child was burning with fever, but we finally induced the mother to open the windows and let the child uncover and stand in the room like that. We succeeded very well. The child at once felt better and more comfortable in every way, although outside was more than freeezing.

Dr. C. V. Reynolds.—I would like to make one remark, and try to help Dr. Sawyer sustain his point. You cannot have one special degree and say that is normal for a man's temperature, whether it is above normal or whether it is below. As we all know, the class of fever which he speaks of is generally a pathological change, and produces internal fever. If you take a man's temperature after eating a very hearty meal, it will sometimes run up to 100 degrees. I have never tested myself, but that is true, and in normal lactation very often the temperature will be 100 degrees when there is no pathological change to cause it. In the case of running, reported by Dr. Sawyer, there is no pathological change; there temporary combustion produced this fever temporarily. Of course I do not believe that a man can have a normal temperature of 100 degrees, and take that temperature, as suggested, every two hours in the day, but he can have a normal temperature going to 99 degrees, or even 100 degrees with no pathological change.

Dr. L. B. McBrayer.—I think it would be a great mistake if the physicians who are present to-night, or any one of them, should make it a rule to consider a temperature of 99.6 deg. normal temperature. For my part, if a man comes to my office with a temperature of 99 I am going to look that man over closely, and try to find what is the matter with him, and if he comes back from day to day with a temperature of 99.6 deg. I should expect very soon to find out that there was something wrong, and I should like the doctor to tell us in about what per cent. of cases he expects to find a normal temperature above 98.6 deg. or 99.6 deg. as he says. I have examined a great many people, and so far as I can remember at present, I do not recollect ever having examined a man with a temperature that close to 100 deg. unless there was something the matter with him. Of course I can very well see how, after excessive exercise, the temperature could be raised momentarily, but I think it would be a great mistake for us to make a rule that we consider 99.6 deg. normal temperature. The doctor spoke of hysteria producing a rise of temperature. Ordinarily we consider there is no pathological lesions in hysteria. I want to quote one case to bear on that point. I treated a lady a good while ago for pneumonia, and the patient got well, and the temperature was normal. I saw her in the morning and discharged her. The temperature was normal and had been for a day or two, and the lung was clear, and I expected no more trouble, but to my surprise that afternoon I received a telephone message to come at once, and of course, as a young doctor will do, I was trying to make up a diagnosis before I got there. When I reached the house I found her with a temperature of 104½ deg., and I began to hunt for something to cause that temperature. I examined her lungs and was not satisfied, and I examined them again; I still found no trouble. I investigated, and in a little while got the history of the case. and I found that she and her husband had had a little family row, so I decided to give a placebo, and awaited results. The next morning I found a normal temperature, and her temperature did not go up any more, as far as I found. I think that temperature was caused entirely by hysteria.

Another point; in regard to what he says about a child's temperature rising higher than an adults. If I go to see a child with a temperature of 104 deg. or 105 deg. it does not alarm me. A child can fill up with apples or other things, and produce indigestion, and with a little of Dr. Burrough's treatment he will be well next morning. Still I want to say that I think the profession of to-day are well up to date, but I don't think they know everything yet, and I think that the physicians who practiced 30 and 40 years ago knew quite a lot about medicine after all.

Dr. C. V. Reynolds.—I don't know whether Dr. McBrayer was referring to my point. I did not mean to say that a man's temperature from pathological change running from 98.6 deg. to 100 deg. was normal, but I meant to say that a man could have that temperature *temporarily* and yet have a normal temperature, that is, you may find a man with a temperature ranging from 98 deg. to 100 deg. and *his condition will be normal*. I have never observed it, and can not give any statistics, but I quote Loomis; that is his statement, and he is pretty good authority.

Dr. L. B. McBrayer.—I understood from the doctor's paper, and really thought Dr. Reynolds intended the same thing, that a man could have a normal temperature, a constant temperature of 99.6 deg. and still be normal in that man. I saw a temperature of 109 deg. once. It was in a child with indigestive diarrhœa, and Dr. Burroughs and I were called to attend it. I sat there and watched the temperature gradually go up and the child gradually go away, and at 109 deg. the child died.

Dr. J. Sawyer.—There seems to be a general misunderstanding about what I said about the normal temperature. I said it ranged from 98 deg. to 100 deg. *in exceptions*. Take for instance the case of a boy I knew. Every time that boy went to the theatre his temperature rose from 98 deg. to 100 deg. I would give him bromides and the next morning he would be all right.

Dr. G. W. Purefoy.—If that boy was very nervous he was not in a normal condition, and that boy was certainly pathological. It does not make any difference what runs that temperature up, it is a pathological condition. We often cannot find the cause of that slight temperature. I have patients come to the office day after day, and I find a temperature of 98¼ deg. Some time ago I had a lady come to the office quite a number of times. I make it a rule to take everybody's temperature if they come more than once. I thought for a little while this lady had some lung trouble. Her temperature was invariably 99. I found out later that she had a little pelvic trouble. That probably accounts for it, but I insist that whenever the temperature goes over 98.6 it is a pathological condition.

Dr. J. Sawyer.—In the case of a man running, or in the case of a man eating, there is no pathological change. The boy was nervous only when he went to the theatre, and so the fever was not pathological in his case.

Dr. G. W. Purefoy.—If eating a hearty meal runs my temperature up to 99.9 deg. why doesn't it run some other man's up? There is a pathological condition in my stomach that causes that elevation of temperature, and there is not that pathological condition in the other man's stomach.

Dr. J. Sawyer.—I would like to say in answer to the question as to the per cent. of cases I expect to find the temperature above 98.6 deg., that I don't *expect* to find any above that. I consider 98.6 deg. normal, but I do believe a person can have a temperature above 98.6 deg. and still be normal *for a time*, but if I find it above 98.6 deg. day after day, I look for something and expect to find it, and generally do.

Dr. E. B. Glenn.—I agree with Dr. Sawyer that the temperature will rise just after taking food, and I was always taught that it was due to increased amount of oxidation, just as when you throw an increased amount of fuel on the fire it will increase the heat.

The Chemico-Physiologic Action of Arsenic and the Therapy of Arsenical Preparations.

By THEODORE WILLIAM SCHAEFFER, M. D.,
Professor of Chemistry, University Medical College, Kansas City, Missouri.

Whenever arsenic, in the form of arsenious trioxide (improperly called arsenious acid) is brought in contact with the living tissue, as the denuded skin, it acts as an irritant, and produces inflammation and sloughing, with considerable destruction of tissue. Hence its use in medicine as a caustic for the removal of morbid growths. When brought in contact with the dead tissues it does not show any destructive action whatsoever. Organic objects of natural history can be preserved by it, and embalming fluids containing arsenic can keep a dead body in a state of preservation for a long time.

How do we explain this discrepancy of action? Why does arsenic act destructively on the living and not so on the dead tissue? I think that the above queries can be answered from the following experimental facts:

Fresh protoplasm, especially of the brain tissue, of the pancreas, of the gastric mucosa and liver, has the property, when treated outside of the body with arsenious acid, of converting the latter into arsenic acid. Potassa and soda readily take up arsenious trioxide, and form very soluble salts, possessing the formula of Na_3 AsO_3. When brought in contact with the alkaline fluids of the body a similar reaction ensues. The tissues of the body in general, particularly of the organs mentioned above, rapidly change arsenic acid (in the form of an arseniate) again into arsenious acid (in the form of an arsenite).

The conversion of arsenic acid into arsenious acid occurs only when the protoplasm possesses life. Even the living organism makes arsenic acid from the arsenious acid, and, by change of order, if we introduce one of the acids into the coil of a small intestine of a living animal, one is soon enabled to detect the presence of the other acid. Introduced into the stomach, the arsenious acid is absorbed, from whence it passes into the blood and lymphatic currents, where it becomes arensite of sodium. What passes into the smaller intestine or when brought in contact with the denuded cutaneous surface, as the case may be, is converted on the spot into the sodium salt. As soon as this comes in contact with the protoplasm, it reduces the latter and seriously interferes, like all strongly reducing agents, with its very organization. The arsenite of sodium at first produced is converted into the arseniate of sodium.—Na_3 AsO_3 into Na_3 AsO_4, taking up another equivalent of oxygen. The arseniate of sodium gives off its borrowed oxygen in the blood and perhaps rapidly in the tissues, and is thus changed again back to the reducing protoplasmic poison; and this repeats its violent reducing action upon the living cell, until it is eventually removed from the body by the emunctories.

In its action upon the living protoplasm of the glands, the nerve cells and the walls of the capillaries resides the prime cause of its toxicity; in the continually renewed production of arsenious acid resides the cause of the persistency of its action. The more oxidized arsenic acid produces a less rapid toxication, because the acid must be first converted into arsenious acid, in order to produce a decided toxic effect. Where the described process occurs with moderation, it becomes a formative irritation for the tissues, just like the energy of growth is increased after the administration of small doses of phosphorus. When the quantity of arsenic is increased, a point at last is reached when its action becomes destructive and occasions those characteristic lesions found in the glandular tissues and their vessels, in fatty degenerations and paralyses, which belong to the action of both of the acids. The action of arsenic is essentially the same as, and in no wise different from, that of phosphorus.

Upon the property of rendering oxygen active depends the antifermentative and antiputrescent power of arsenic. The respective ferments act upon arsenic exactly like the protoplasm of the animal does, but succumbs like the latter when arsenic is present in excess. If, however, the ferments have numerically or rather proportionally the preponderance, they are capable of converting the arsenic into arsenuretted hydrogen, which passes off in vapor, and the organic substance becomes the prey of the ferments.

By the careful administration of medium and not toxic doses of arsenic the quantity of glycogen is diminished in the liver and urea is increased in the urine, thus proving an increased cellular activity. Very small doses frequently repeated, occasion in man and in animal an increase in growth. The bones increase in thickness as well as in length, the skin assumes a glossy hue and there is an increased deposition of fat in the tissues.* (Grundzuege der Arzneimittellehre, von Dr. C. Binz, 1891, pages 158, 159 and 160). The organized ferments are frequently checked in their development as well as in their transforming activity.

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*Translated from the German by the writer.

Arsenic increases the elimination of nitrogen by the simultaneous diminution in the absorption of oxygen and elimination of carbon dioxide, and causes in this way a fatty degeneration of the organs. It appears that under the influence of this poison fat is formed from the proteids. The nitrogen with a small proportion of carbon is dissociated from the proteid molecule, and the nitrogen free residue is deposited as fat in the tissues.* (Lehrbuch der Physiologischen und Pathologischen Chemie, von G. Bunge, page 128).

So, what we have hitherto known of arsenic as a so-called alterative (a rather obsolete term) can now be more scientifically explained on chemical grounds.

Arsenic is in fact an oxygen carrier; it is an oxidizer and deoxidizer. Hence its beneficial effects when taken internally in small doses of exerting a tonic effect upon the nervous system, improving the quality of the blood, being an excellent hæmatic, of great value in ague and chronic malarial disorders, promoting digestion, and can often be relied upon in the many forms of dyspepsia.

Chronic Cutaneous Ulcers and Treatment.

By S. C. Martin, M. D., Professor of Skin Diseases in the Barnes Medical College, St. Louis, Mo.

The frequent occurrence of ulcers in middle life and the stubborn resistance they offer to the most skillful treatment furnish sufficient grounds for a careful examination of their pathology.

Unless they are the manifestation or accompaniment of specific disease they are almost invariably seated on the front of the lower leg or behind the malleolus—parts most exposed to traumatisms and least capable of resistance to their injurious results.

Varix is a leading cause in the production of this class of ulcers. The anatomical character of this region is an auxilliary factor, deprived, as it is, of adipose and cellular tissue, as well as vascularity, so abundantly provided in other parts of the body.

The tissues of the lower part of the leg, ankle and foot, are composed largely of skin, fascia, tendons, and ligaments, bound tightly together with a meager, and at times, obstructed blood supply, and yet they have a heavier burden to bear than any other members of the body, especially when it is erect and in motion. The return circulation has also gravitation to encounter, which retards the current and favors the development of varix.

This condition is often aggravated by improper wearing apparel, such as waistbands, garters, corsets and tight shoes, so when everything is considered, it is a puzzle to understand why chronic ulcers of the leg is not more common than we find it to be.

A small ankle and foot are admired, especially in females, but for a heavy body, large shin bones and ankles, with feet to correspond, contribute more to bodily vigor, if not to symmetry, than the former, and at the same time the comfort of the individual is materially increased.

We can readily understand how weak a man would be with an avoidupois of 350 pounds bearing down on feet encased in number 6 shoes, and still the writer has witnessed this very anomaly.

Non-specific ulcers of the leg may be divided into the healthy, indolent, irritable, inflammatory, phagedemic and hemorrhagic.

The healthy ulcer does not need our special attention, except to emphasize the fact that all the other kinds mentioned must be converted into that form before we can hope to effect a permanent cure.

In our management of ulcers, this must be kept constantly in mind.

The indolent ulcer, which is a common form, is chronic, deep and excavated with ugly granulations, discharging a thin and bloody pus, with hard, shiny, and irregular edges, often presenting the appearance of vulcanized rubber, not only in feel, but in color.

The skin is firmly glued to the underlying fascia, and nearly always destitute of cellular tissue.

Deficient vascularity very often accounts for the slow reparative process in this form of ulcer. Its history, fortunately, is marked by an entire absence of pain. The treatment indicated, is first a thorough cleansing of the ulcer with an antiseptic lotion, and dusting the surface with nosophen, which is a 60 per cent. iodine compound, obtained by the action of iodine on solutions of phenol phtalein.

The advantage of this preparation over most others of similar constitution is its non-toxic, odorless, dessicative, antiseptic, and mildly stimulating properties which render it serviceable in all forms of cutaneous ulceration. It is an acid, however, which will only exert its antiseptic action by being converted into a soluble form. This is accomplished by its union with the free alkali of the human secretions, lymph and blood.

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*Translated from the German by the writer.

The conditions necessary then for its successful action, are a complete removal of crusts and purulent accumulations from the surface of the ulcer. After dusting the ulcer thoroughly, a pledget of absorbent cotton should be applied, over which a small compress of nosophen gauze may be placed, and kept under the uniform pressure of a properly adjusted flannel bandage. No rubber bandages should be applied, for they are always as uncomfortable as a rubber shoe when constantly worn.

The dressings usually do not require to be renewed oftener than every two or three days. Internal treatment must not be neglected; alteratives, laxatives and tonics are generally indicated. The irritable ulcer is always accompanied with pain. It presents a grayish surface, irregular, but non-elevated edges, discharging purulent matter tinged with blood. In this form of ulcer the patient should be placed on his back, with the leg elevated. We should first apply nitrate of silver solution in the strength of 3 to 4 grains to the ounce of water with the same quantity of tannic acid added, on lint, subsequently the nosophen powder may be dusted over the ulcer in thin layers, after having added to it an equal quantity of acetanilid to allay painful accompaniments.

The cotton, nosophen gauze and flannel roller may now be applied as in the indolent form of ulcers.

In some cases where the pain and irritation persist, an opium lotion may be temporarily resorted to.

Constitutional treatment must be governed by the requirements of the case, and is usually symptomatic.

Inflamed ulcer is greatly the outcome of the foregoing forms, induced by over-stimulation or mismanagement. It is marked by heat, redness and swelling, with an offensive, purulent and bloody discharge.

The treatment is rest of the limb in an elevated position, antiseptic, cooling and evaporating lotions. The inflammation must be reduced before applying the nosophen dressing or bandage, as in the other mentioned forms.

In hemorrhagic ulcers, which are generally a variety of the irritable ulcer, nosophen is particularly efficient on account of its hemostatic and soothing properties. This form of ulcer occurs mostly in females who are troubled with irregularities of menstruation. The proper treatment in such cases is to correct, as far as possible, the conditions which occasion or aggravate the ulcer, and then pursue the treatment above outlined.

When there is a varicose complication, one object should be to relieve the dilated vessels from blood pressure. To this end we should resort to the uniform pressure of the flannel bandage. In this condition the blood moves slowly, more oxygen is given off to the tissues—the skin, where the varicose condition continues long, becomes brawny and pigmented with a tendency to degeneration. By judicious pressure, the normal circulation can in a measure be restored, and such results prevented.

The treatment of ulcers cannot be rigidly fixed, but may be outlined and modified according to requirements of pathological conditions.

3408 Franklin Ave.

Hagee's Cordial of Cod Liver Oil Compound in Chronic Adenitis With Otorrhoea.

By Wm. C. Boteler, M. D.

On November 15th, 1897, I was consulted by a gentleman, Mr. C., who desired my advice as to "an annoying discharge from his left ear." He was about thirty years old, married and of frail development. His occupation was that of stenographer and one of the secretaries to the President of the United States.

His previous history was as follows: For several years he had marked enlargement of the limphatic glands of the neck involving the mastoid, paroted, submaxillary, and superficial cervical groups of each side; he had submitted to the excision of the tumors as they occurred, and at the time stated, there was no marked enlargement. There were no constitutional symptoms, there had been no suppuration; there was no fever; there were no hypertrophied tonsils, nor adenoids in the naso pharynx; the teeth were in good condition; there was no involvement of the axillary or inguinal lymphatics; there had been no caseation, and fibrous tissue seemingly predominated.

The history of the case had shown marked exacerbations; the tumors had reached usually the size of a butter-nut when they were excised; the patient's general nutrition was fair.

About five months before, he had noticed a wasting of serious liquid from the ear; it followed an operation for the removal of an enlarged gland.

The patient was placed at once upon cordial of cod liver oil (Hagee), internally, a teaspoonful three times a day. Antiseptic solutions of bichloride of mercury 1,000 to 2,000 were instilled into the ear warm after syringing daily, for ten days. At the end of this time the patient announced his ear well. Examination showed a small perforation of the ear drum which soon closed after the use of a solution of argenti nit. grs. x to one ounce.

The patient was instructed to continue the use of the cordial above which was done with some irregularity to February 1st. He has now no loss of hearing, no further discharge from the ear; hs has gained about ten pounds in flesh; his cervical glands are nearly normal; he feels very considerably improved.

An interesting feature of this case is to decide whether the suppuration from the middle ear was "a coincidence," or whether it was due to a breaking down or caseation of a minute lymphatic gland therein, and if it was the latter, what group or gland was so involved. The alterative effect of the cod liver oil preparation was very marked in this case and deserves special notice.

Washington, D. C.

The General Practitioner, the Specialist, and the Panic.

By F. R. MILLARD, M. D., San Diego, Cal.

Panics are as contagious as virulent microbes, and, like some microbic diseases, a panic may abate at its place of origin, while it is still spreading with unabated rapidity in a more distant place. This is true of the present panic among the doctors. It has almost disappeared among specialists, where it started. Those who formed the national associations of specialists were mildly desirous that none should rank as such except those who had demonstrated their ability as general practitioners, and superior ability in their special line.

But they failed to fix a standard of ability, or of superior ability, except that each aspirant should have a legal right to sign M. D. Soon their numbers increased so rapidly that they evidently feared that before they had become superannuated, there would be no general practitioners to act as teasers for specialists, and in oration and editorial they condemned the tendency of the young doctor to launch himself into a specialty before he had sufficient experience in general practice. The general practitioner should have required of them a standard of ability, and a fixed meaning of the word sufficient. But he did neither, and only said this isn't our funeral and went about his business. Observing this indifference the specialist showed himself wiser in his generation than the children of light, and abandoning his efforts to garner all the loaves and fishes by limiting the number of specialists, directed his energies to increasing the number of specialties in confident assurance that when the line was fully completed each chump would necessarily be content with a few crumbs and one small fish. Some have told us what they think sufficient experience in general practice is.

The great delineator of human nature says: "Some men are born great, some achieve greatness and some have greatness thrust upon them." The man who knows that he was born a great specialist thinks that he learned all there was of general practice by devoting an hour or two each week, and an occasional Saturday half holiday to gratuitous practice during the five years in which he was perfecting himself in his specialty. The man who achieved greatness after ten years of general practice, says the student, who would be a specialist, should devote ten years to general practice and then two or three years as assistant to a specialist of eminent ability, while the man who had greatness thrust upon him, after twenty years of general practice is sure that any greatness built on a narrower or shorter foundation than twenty years, will be mostly wind. And although they could never agree on a standard of ability, or what *sufficient experience* in general practice meant, there has always been perfect agreement among all classes on one point, *viz*: that the general practitioner is totally incompetent to diagnose and treat diseases *in our line*, and each one seems to think that he can never win eternal salvation unless he reports one or more cases where a mutilating operation was required, which might have been avoided if the case had been turned over to the specialist at the start. Then taking the case as a test he gives us some much needed lessons as to our duty, first to the specialist and second to the patient. So numerous and painstaking have these lessons been that our way is now so plain that a wayfaring man, though a fool, need not err therein. The general practitioner appreciates these lessons of wisdom at their true value, and acknowledges his indebtedness therefor, and it has long been a cause of deep grief to me that he has been so negligent about paying the debt. But he has some excuse. His nights must be spent in trying to solve the ever recurring problems, what shall I eat, what shall I drink, wherewithal shall I be clothed, and his days in gratuitously making liveable fragments of humanity that came to him after having left all their money and part of their anatomy with the specialist. If he had time and the pen of a ready writer, he might begin paying his debt to the cœliotomist by reporting the case of a carpenter who applied to a gray haired veteran who could not make a diagnosis without an exploratory incision which the man survived, and then went to work on the surgeon's new house to pay for the operation. When that was done he had not obtained the desired relief and next applied to a spic-and-span, up-to-date, new man, who was duly horrified to know that any man calling himself a surgeon would do such a sowgelder job, and that the man might with proper pride show his belly and say to the world, look on this picture and then on that as he proceeded to parallel the incision. It must be admitted that the second scar was a thing of beauty, but it did not prove a joy forever to its possessor, and at last the general practitioner had to do the best he could for a man who had hysteria. He might begin paying the gynecologist by giving the history of a woman who went into a hospital and had her anus stretched, her urethra dilated, her cervix divulsed and her uterus curetted, and was then sent home with the assurance that she must not expect complete relief immediately, but that when she got over it she would be well, and she was well when the general practitioner had cured her chronic ureteritis. As they have been more generous in their teaching than any other class, they might claim a larger dividend, and he might tell of a woman who consulted one who made a provisional diagnosis of retroverted uterus, but could not make a positive diagnosis without an examination, and as she objected to the vaginal route he poked his finger into her anus and told her that her womb had been retroverted but that he had replaced it, and she would have no more trouble from it. But the trouble did not abate and a couple of months later she consulted a general practitioner who demonstrated a floating kidney and advised her to have it anchored in its proper place.

In order to encourage the otologist to continue his efforts to convince himself that the general practitioner knows nothing about the ear, he might tell of a woman who was treated for four months for pain in and discharge from the ear, and when she informed him that her money was all gone, was told that it was his invariable rule that each treatment must be paid for when received and that when her funds were replenished he would be pleased to continue the treatment. She then consulted a general practitioner who extracted a wisdom tooth which stopped the pain in the ear immediately, and in a week the discharge stopped without any treatment and though that was more than a year and a half ago neither has returned.

In part payment of his debt to the rhinologist, and to stimulate him to redouble his herculean efforts to convince the world that none but specialists should attempt to treat nasal catarrh, he might tell of a man, who through the whole of a Minnesota winter had weekly cauterization of his turbinates, daily douching of his nares, and spraying of his naso-pharynx, after which he was dismissed to his home three miles away without its ever having been suggested to him that it would be well to protect the recently treated surfaces from direct contact with the outer air, which was often many degrees below zero; and when the robins came he was told that after one or two years more of continuous treatment his catarrh would be measurably controlled. He then consulted a general practitioner, who gave him a bottle of carbolic acid and a hand bulb nasal syringe, a bottle of camphorated oil and a camel's hair pencil, with some common sense directions, which the man followed and when the winter again came around his catarrh was a memory.

I assure you, my dear specialist cousin, that the general practitioner has plenty of assets to offset all his liabilities, if he only had time to fix them for the market; and if he does not always promptly repay his debts in kind, do not think he is ungrateful. I hope no one will jump to the conclusion that Pacific coast specialists are sinners above all others, for some of these cases, and others that would match them, were treated in the East, the supposed source of all light and knowledge.

Laryngeal Intubation in Membranous Croup.

By C. P. Thomas, M. D., Spokane, Wash.

In looking up this subject today, I was struck with amazement to find that so eminent an authority as Jacobson, of London, in his latest edition of "The Operations of Surgery," should condemn the intubation tube and give preference to tracheotomy.

On further reading his article on the subject, the only possible excuses I can offer for his erroneous conclusions are that he and his friends have had only imperfect tubes, and also that they had not at the time it was written used antitoxin. It has been my pleasure to have used intubation and antitoxin in over twenty-five cases of laryngeal croup, in many of which, severe dispnœa was present, and only one death has occurred.

This was in a three months old child, who had been sick three days with diphtheria without treatment, and was emaciated and ready to die from other causes before the laryngeal symptoms came on. Even in this case the croup was relieved by intubation, but the child died twenty-four hours later from toxæmia.

During this same epidemic, there have been fourteen tracheotomies done, one of which was by myself, and not one recovered. This is a decided contrast with Jacobson's statistics, in which the recoveries after intubation were but twenty per cent., and although he greatly prefers tracheotomy, he only shows eleven and one-half per cent. recoveries with it.

One of his principal objections to the tube is that in some cases it pushes the membrane ahead of it and in that way causes immediate death by asphyxia, but he fails to state that the same accident may also occur during tracheotomy.

I have had the membrane to become so detached on two different occasions, but in each case, I simply removed the tube and with it came a large piece of membrane, in one instance, a cast extending into the bronchi.

Although the breathing was for a time improved, it soon became bad again, owing to the difficulty being at the glottis, but was relieved upon re-introducing the tube.

He further states that the child cannot be properly nourished while the tube is in; this is also contrary to my experience. By feeding the child, while it is in a recumbent position, with the head turned to one side, it can take any quantity desired of liquid food.

His entire criticism and opinions on this subject are on a par with the above, and could never have been written by one familiar with the use of the tubes invented by Dr. O'Dwyer.

The introduction of the tube is not a simple matter, but is in fact a most difficult one until much practice is had, and it is then anything but simple to put one into a strong, obstreperous, choking child; but with two good assistants, a little patience and manipulative skill, and with an accurate knowledge of the anatomy of the parts, it can be done in every case.

While endeavoring to introduce the tube, if it should be passed into the œsophagus a time or two, it will do no harm provided gentleness is used, and can at once be removed and another attempt made to properly insert it. The peculiar metallic sound that is produced by air passing through the tube when it is properly placed, is unmistakable when once learned.

I find that some writers say to have the string long enough to allow the tube to pass into the stomach if it misses the windpipe, this I also consider to be entirely wrong for I doubt one's ability to withdraw the tube from the stomach, while if the string is short, the tube can be withdrawn easily before it reaches the stomach.

All the late works on surgery contains more or less accurate descriptions of the procedure of intubating the larnyx. I will therefore omit a general description, but I wish to call attention to a few practical points which I have learned by experience regarding it:

In the the first place the gag must be a good one. I have found Denhart's to be the best. Then select two of the coolest and most intelligent people in the house for assistants. Wrap the child in a blanket, and place it on the lap, face forward, of one assistant who sits in an upright chair, and whose duty it is to keep the patient's feet and hands quiet.

The gag is introduced by the operator and given to the other assistant to hold in position, who stands behind the patient and first assistant, and holds both the head of the child and the gag. The face of the child must be in a perfectly straight position with its body; this is important, for otherwise the epiglottis is turned to one side, and the introduction of the tube made most difficult.

The left fore-finger is now passed down to the epiglottis, and here a difficulty has arisen in my hands, to be able to detect the opening in the same, with the child straining, gagging, and often vomiting. The sensation conveyed to me resembles greatly that produced by feeling the female meatus urinarus.

The tube is now slid down in front of the finger into the glottis, the finger immediately detects the soft septum of mucous membrane, between it and the tube, which must then be slid home quickly, and the obturator and introducer removed while the finger for a moment holds the tube in position without obstructing its opening.

It is my custom to remove the gag now and give the child its freedom a few minutes, being careful that it does not pull at the string which is still in position. Should the string be permanently left in, it greatly hinders the expectoration of mucus.

When the breathing begins to improve, I remove the string and place the child in bed on its side, which allows the mucus to run out of its mouth instead of down the tube, if it is not strong enough to spit it out.

This position also enables the child to be fed and given all necessary medicines, which must, of course, also be in a liquid form. If the child is old enough, and has sufficient judgment, it may also be allowed to take liquid food while lying on its abdomen.

As regards the removal of the tube, every case must be a law unto itself; I have allowed it to remain from three to thirteen days. If the breathing becomes difficult, I remove and cleanse the tube, and re-introduce it, repeating this as often as necessary.

If the patient coughs out the tube, I instruct the attendant to call me as soon as the breathing becomes labored again, otherwise I leave it out altogether. Any time after the third day when the child becomes bright and playful, and the pulse and temperature remain normal, I remove the tube and leave proper instructions regarding the necessity of its re-introduction.

All gargles, swabs and sprays are dispensed with when the tube is put in, and almost my sole reliance is put in antitoxin, and in this variety of diphtheria, I give large doses, beginning at fifteen hundred to two thousand units, and repeat these as often as the condition seems to require.

Jacobson's assertion that the narrow chink-like calibre in the O'Dwyer tube is too small to admit free expectoration of mucus is also wrong, as an abundant discharge is present when it is first introduced, and more or less all the time, nor have I seen sloughing of the larynx, during or after its use.

He also speaks of the tubes falling into the trachea, but with reasonable care in selecting the size which corresponds with the age of the patient, I do not think this accident would ever happen.

I have had no experience with O'Dwyer's secondary, or extra long tubes to be used in special cases, nor have I yet needed one, but I can understand how such an instrument might be valuable.

I believe also that the good results obtained from intubation may be partly attributed to the well-known local antiseptic effect of metals generally. This being a point in favor of metallic, in preference to the hard rubber tubes.

Many other important points in favor of intubation, and against tracheotomy, such as the readiness of parents to allow the operation to be performed, which does not necessitate cutting; the harmlessness during and after its introduction, the fact of its not requiring a skilled after attendant, and last, but not least, the absence of a scar or raw surface for the disease to spread upon, thereby reinfecting and perhaps destroying the patient, have been intentionally omitted.

I hope, however, that enough has been said to convince those who are willing to be convinced that intubation is not only a much safer and more valuable operation for croup than tracheotomy, but that it is also a procedure that should be familiar to every practicing physician, and should be resorted to as frequently as is necessary and always without delay.

The Success of the Young Practitioner.*

By Leon L. Solomon, A. B., M.D., Pathologist, Louisville City Hospital: Director of the Chemical Laboratory, Kentucky School of Medicine: Lecturer on Materia Medica to the Louisville Training School for Nurses and to the Norton Infirmary Training School, etc.

My friends, it is not completely without a feeling of trepidation and some misgiving that I come to address you this evening, and upon this subject. Older heads than mine might have, possibly, better elected to choose this theme for your consideration. However, it has occurred to me, that it especially belonged to the province and jurisdiction of the young man to formulate plans, and conceive ways and means by which he could easiest and best achieve success, forge his way quickly to the front, then steer his Ship of State to a place, where, launched, its position of vantage would be excelled by none. Older men have not to succeed to-day, their success is accomplished, or it is, at least, already assured, else it will never be. This success however, my friends, was obtained under different circumstances, in different surroundings and environments, you must grant, to that, which now dares you and me to succeed. Medicine of to-day is not medicine of yesterday, nor of twenty years ago. The practice of physic, at this present time, is as distinct from that of one or two decades past, as day almost is from darkness; and, while I do not propose to underestimate the real worth of the physician of those times, I make bold to say he was a mere diamond in the rough, as compared to the more finished article of the present time. The last few years have seen such complete, such radical changes in the theory of our science and in the practice of our art, that were the same men to attempt success today as they did once so splendidly succeed, their's would indeed be, I fear, an unhappy lot. Besides, and to further argue the rights of a young man to undertake to discuss this question, while tendering my apologies for so doing, I urge that old men ordinarily forget how they achieved success, and, to ask them the reason for their present position of exalted rank might often mean to embarrass them. It is not how did he succeed in years gone by? The burning question to-night is, how will you succeed? What must I do to guarantee success? These are the questions which I have sought to answer for you, and the foregoing are my humble reasons for the choice of this subject: "The Success of the Young Practitioner."

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*An Address delivered before the Students of the Kentucky School of Medicine, April 16, 1898.

Many things are essential to the permanent success of a doctor. On the other hand a very limited number, in fact, one or two elements or prerequisites lacking, and his failure is sure. With him, the sins of commission and the sins of omission are alike harmful. Indeed to enjoy perfect success, the physician of to-day must approach "the ideal of perfection." But understand me, when I say success, I mean *success* in the fullest sanse of the word—not the mere petty enjoyment of a lucrative practice—this does not necessarily mean success. When it comes to the selection of a physician the public are often times guided by some whim or fancy which has absolutely no meaning. They , therefore not infrequently employ the man, who has his name and standing merely among them, and whose rank amongst his colleagues is, on account of lack of knowledge and understanding, necessarily low.

To have a large practice is not *all* of success. I would emphasize more especially as evincing success, the position which the physician holds among his confreres. These are best able to judge him correctly, and their stamp of approval or disapproval is the only fair estimate of his actual worth. Seek then, I say to you, and let your constant fixed purpose be, to earn a reputation among your medical associates, of which you may be proud. This acquired and your reputation among a future clientele, is as certain as is the rising of the morrow's sun. To accomplish all this you must first and last be, always gentlemen—this, the highest title with which man can honor man, is an absolute prerequisite. Next, you must be a scholar, possessing a wide scope of general and technical information, and evincing proof that you have the energy, and are eager to make the application necessary to increase this knowledge. Your fellow practitioner will weigh you carefully in the balances, he will make no allowances *for what might be*, but proposes to put upon you the tag of actual marketable value. See to it, I urge you, that you are not found lacking. In these days, when competition is so active, it has been said "the best is none too good." Let this be your motto, *that best is surely none too good for me.*

The young man who has decided to study medicine and become a doctor should hesitate and consider well. Let him come to have a fair understanding of the office, which the physician must fill, of the demands which are going to be made upon him as a doctor. Is he ready to comply with these many demands; is he prepared to discharge these various duties? Consider well, I say, "Doctors are born, not made," it has been truthfully said. First, the student of medicine must be sure of the possession of good, physical health—of a strong, sound constitution. No other man, not even the day laborer, makes the demands upon his constitution, that are made by the doctor. On duty all day, braving the storms and sleets of the night, he goes out of one obligation and into another. His must be "a sound mind in a sound body."

Having concluded that he will enter medicine, what course shall be pursued by the prospective student? The primary education must be looked after. The time is rapidly approaching when the student finds it necessary to posssess an academic degree, before he can matriculate in a medical college. Already some of our institutions are demanding as much. The cry is now, "progress in medicine." A higher standard is essential to this progress, and the American Association of Medical Colleges, following the regime in vogue abroad, have seen fit to demand it.

Next, the prospective student is confronted by the problem, where shall I obtain my degree? This may be a very vexing problem. Unfortunately medical institutions in this country are too numerous. They have been organized frequently, and a charter has been sought for and obtained, with the one express motive on the part of the founders, and that is to incorporate a money-making institution. It is all well and good enough that money should be made. An enterprise is a failure, which does not net profits and returns, but monetary considerations must not be paramount in educational matters. The two are incompatible, and the school or college, which is conducted upon such a basis, is not good enough for you. Remember your motto, *that best is none too good for me.* Before matriculating in any college, look up its standing. Is it a member of the American Association of Medical Colleges, *and does it live up to the demands of this association?* Is the college recognized by State Boards of Medical Examiners, or is it a so-called "Cheap John affair," where attendance or *non-attendance* [upon several courses of lectures. *and money* will buy a diploma for the greatest numskull? Such a college is not good enough for you, gentlemen. An institution, which will do things unethical—which will employ and put into working force ordinary business, means and tricky business measures, by which it aims to enlarge its roll call, and ultimately its coffers, is unfit for your confidence, and must essentially graduate a class of men among whom you would not care to see yourself enrolled. No, your aim, I think, is higher. The school, which claims you as her proud offspring, is not honored, except you can claim and proclaim her your gracious and grand Alma Mater—except now, and in after years, you can, with a feeling of pride, look up to her and say, "Oh kind and gracious mother, to thee I owe my all; may thy progress be ever forward—onward; may the time never come when thy children shall not reverence and love thee!" This, gentlemen, represents the character of the institution, from which you may wish to graduate; and permit me to say now, and to hope and pray, that ever in the future, we and those who come after us, will always have courage to love and revere your Alma Mater. Having chosen the college, which you will attend, it devolves upon you to be regular and punctual in your attendance. Be on the ground, when the first bell is sounded, and take your departure only after the echo of the last call has died away. Some men conceive the idea that it is just as well to come into college a month late, and that very little is lost by leaving a few weeks before work suspends. No mistake could possibly be greater. In most medical colleges little time is lost in enrolling students, active duties beginning so soon as the college calendar starts. Then again, this is the time for the essentials—for the A B C's, and unless they are gotten, much valuable knowledge is lost. Besides, the professors and corps of instructors are now in best condition to impart knowledge, fresh, as they are, after their vacation rest. The end of the term is, as a rule, spent in reviews and recapitulations, which every man must count as very important; therefore, gentlemen, it does make a difference, and you should be on time. I have heard men say, "Oh that's all right, the faculty doesn't know any better, you will get your diploma just as easy, if you do miss a lecture or two now and then." But I want to ask you the question, who is defeated in such a course? Most assuredly not the faculty—not the dean nor any individual professor. The man has defeated himself. Everything that the student of medicine hears, everything that he sees, is new to him; he can not see it, he can not hear it too often, nor too well; and it behooves him to keep his ears and his eyes wide open during his four years of pupilage.

Finishing with the student, we come to a consideration of the young doctor, for he has become such now, by reason of his recent graduation. Sailing forth as best man in his class, or as middleman, or, perhaps, thankful that he has been able to bring up the rear, we address him with the proud title, Doctor. None is probably so proud as he. Surely none needs be more courageous than he, for at once his trials and troubles have begun, and ere the first year has sped away, his patience and endurance will be tested to their fullermost. Your first year, gentlemen, will be your most difficult. It was mine, it was and has been every other doctor's. People will be very kind to you. Oh yes, they speak to you, they ask you how you are getting along. They ask, "much sickness now, doctor," they even offer you a word of encouragement, and, possibly they sympathize with you, but one thing they don't do and wont do, they never send for you when they are sick, unless you be the only doctor about, and then, to spite you, they don't get sick. Oh yes, you do get some cases, gentlemen, this first year of your professional career, but what are they? Probably Sam Jones has had the *rheumatiz* for ten years or more, and "jist" tho't he'd come around and see if your new 'pizen' couldn't cure him, since none of them other doctors has helped him worth a cent. If it is not Sam Jones, then it is Bill Jones' wife, who has been troubled these many years with "*dyspepsy*" and has drunk enough "*stomak bitters*" to raise the branch, if they was all dumped in at the same time. Tell her she has chronic gastric catarrh, with dilation of her viscus. Show her a stomach tube and tell her lavage would be the very thing for her. Consent to it? No—she will go home and tell all the neighbors that she had at last seen one of them *pesky* things the city newspapers call a *stomik pump*, and if she hadn't had her right senses with her, that new doctor, who had just moved to town would have stuffed it down her throat. She just put her foot down on any such *actin* as that, and told him *dyspepsy* was bad enough—yes, but he couldn't try any such capers on her. So it is and will be, gentlemen, with you, who go to the country; and your brother, who locates in the city, will have it, possibly just a little worse. Our first year's work is mainly among the very poor, so called "charity work," and, from time to time, our acquaintances and friends, and the friends of our acquaintances and friends will call upon us with some chronic disease—as a rule, only after they have consulted and tried the other doctors, with no relief. These offer you little or no chance to succeed and establish your reputation, since they are ordinarily not amenable to treatment. But wait, don't be discouraged, it's a case where *patience* will finally bring *patients.* If Mark Twain is correct, and every dog has his day, surely every doctor will have his, and yours must, sooner or later, come. Your introduction to the better class of patients may be made by accident, when, in some great emergency, by day or by night, you are called in, *because you were near.* More than likely this introduction is made the easier because of a good word, which "some poor charity patient" has said for you. I tell you, gentlemen, the old story of a crumb of bread cast upon the waters is no where better illustrated than in the life of the young doctor, and with reference to the work he does for the sick poor. Many a man owes his large lucrative practice to the efforts of washerwomen in his behalf. Aside, then, from the standpoint of humanity, it pays to be kind, and especially, in our dealings with the sick poor, should we strive to be very kind and very tender. True, some of these patients are inappreciative, but your work is all the nobler, since you lend your service, without any possible hope of return.

On the other hand, be business like; keep a record of people, inquire into their affairs, from a business standpoint, and, if they are at all able to pay, insist upon your fee, which should be graded, according to the patient's finances. A physician told me, recently, that he accepted fees from the poor and gave them away to charity.

In general, people who can pay, but do not pay, have no regard for the doctor, no regard for his rest nor for his feelings, call him often, when it is unnecessary, and at all hours of the day and night, and, in short, have no respect for him.

On the other hand, those who are made to pay, appreciate the services of the physician, and have a regard for him and his calling.

The following story is told on the venerable N. S. Davis and is authentic: Dr. Davis had a woman to consult him, in his office one day, and, on account of the obscurity of her ailment, his interest was excited to that degree, to prompt the request of her return, three times weekly, for many weeks, to his office. Finally, the patient ceased to come. Dr. Davis knew not why. He was quite certain he had given her all the attention possible; he had invariably taken her first, when his office was often full of patients, had repeatedly spent half an hour or more in consultation and examination—he had never sent her a bill, since he looked upon her as being too poor to pay. One day the doctor spied his patient in the streets, and hastening to her, asked why she had ceased to visit him. "Well, doctor," came the response, "while I was going to see you, I saved up enough money to get a *pay doctor*, and I am going to see him now."

Charge a reasonable fee, gentlemen, *for services rendered*, and insist upon its payment. Be neither a cheap doctor, nor a high-priced one. The giving of charity is a question which has vexed people for many years, and is liable to vex them many more. It is a good rule to refuse no sick man your services, unless you are positive that he would mean to continually impose upon you. If so, then refuse him and state plainly your reasons. Pope has best described the patient's feeling for the doctor in these few lines. He says:

> "God and the doctor, we alike adore;
> But only in danger, not before:
> The danger o'er, both are requited:
> God is forgotten, and the doctor slighted."

It is impossible for me to give you a definite idea, to-night, of the fees which you shall charge. Be governed by the schedule, which governs others in your neighborhood. Of one thing be convinced, whether this fee shall be large, or whether it shall be small, the mere payment of a paltry, few dollars can not discharge the debt of deep gratitude which every patient owes his physician. Health returned, by reason of the skill and watchful care of the physician, is not to be paid in terms of dollars and cents. And yet, how few people are willing to grant as much. At times your inner natures will be shocked, and your feelings much hurt, by the lack of gratitude shown, and this may be, when a grateful heart is your only expected recompense, for faithful services rendered. However, "the sweet" will be mixed in occasionally with "the bitter", I hope, to make your life happier and your pathway brighter. You will meet with people, where the entire family—father, mother and children—will tender to you that kind of actual love and affection, which alone, makes your profession the grandest of all professions. This will occur to you all. It is indeed a rare treat and pleasure for the physician to have such families on his list. When called to see them, his heart, naturally, grows bouyant. He goes to them, throws off his professional mantle, and, while still the doctor, is more—*the friend.* Such people place unbounded confidence in their doctor, and he, in return, has every confidence in them. Neither, therefore, will abuse the other. They understand each other, thoroughly, and are the better for this understanding. I know such families, where the doctor is, actually, a household God—where the wife and mother, the husband and father, and all of the children almost worship him. And tell me, pray, is this unnatural?

Our doctor has been so kind and good,
Has always been so tender and loving,
We almost think him one of us,
And we are forced to love him.

And, gentlemen, among such families, you will be most successful. Confidence in the physician, is so necessary to recovery, that I should advise you to give up the case, where you see this confidence wanting. Be frank with people, say to them, as much as you regret it, as reluctantly as you would agree to give up their case, you much prefer it, if confidence is lacking. You will occasionally find that anxious friends and relatives have persuaded your patient, or his dear ones, to try *their doctor.* Never stand in his way, nor place yourself in the light of hesitating to grant their wish. Make plain your position and politely retire. In a like manner, be ever watchful for the patient's interests, and, where the condition demands, suggest the wisdom of a consultation. It is better, that you suggest it, than that it be suggested by the family. Near and dear ones are often *over-anxious.* If, in your opinion, therefore, the exigencies of the case do not demand a consultant, say so, but under no circumstances refuse it, where the request is repeated. "Life is uncertain—death sure." The candle may be burning ever so brightly, yet how quickly can an unseen wind extinguish it. Is the flame of life more certain? Never go to see your patient oftener than is absolutely necessary. This advice, I take it, need not be given. No physician need continue his calls, nor make them oftener, than the patient's condition demands. Yet, it is urged, that some physicians are guilty of this mistake. You will hear people say that "Doctor Blank is a very fine doctor, but he calls on his patients oftener than is necessary, and thus runs up a big bill." Such action, if true, is, to say the least, not praiseworthy. So far as I am acquainted with doctors, they are ordinarily happy when they have a moment's lull in their practice. They hail with delight a few minutes or hours time, away from professional duties, that they may attend to some personal affairs, answer correspondence, or "read up" on some obscure, vexing case. On the other hand, let no man tell you the proper time to return. A class of people will be found, who will suggest to you, that *one visit per day is enough.* To these, spare no words, and make your position plain—you "will be the judge of this, not they."

I am sure, gentlemen, you will lose nothing by being independent. Courteous, all men must be, but the dignity of the profession demands that each member sustain his individual bearing. Embarrassing circumstances frequently happen. They need not, had patient and doctor the proper regard for what is right. Be sure, always, these circumstances were not of your creation, and make the best of the predicament. Every patient, to whom the young doctor is called, is a new patient. Be careful, then, that your *continued* services are desired, before you volunteer to render them. You will be called in, at night, for instance, "because you were the closest doctor in the neighborhood," and some member of the family has fallen suddenly ill. Don't continue with the case, unless it be the especial request of the patient, that you should. Say rather, you will retire, in lieu of the family physician, having done your duty. Then, if they want you, you will be told so, in so many words. The physician should be a moral man, and he is the better for his affiliation with some church. The healer of wounds physical is often impelled to act the part of spiritual adviser. Some how or other, the people soon come to know the doctor, and, if there are any blemishes on his name, or stains on his character, these are soon discovered, of course, to our detriment. This brings me to say, that we professional men cannot separate our daily life from our professional careers. In other words, a man cannot be a gentleman, in one capacity, and an intemperate brute in another, and expect to hold these characters apart from each other. You must be *temperate gentlemen*, in all your habits, and desires, else you will fail to merit success. It is only a natural consequence that the husband and father would hesitate to permit that physician to come into the sanctity of his home, whom he knew to be a wild, reckless man. No matter how skillful you may be, no matter what your reputation for learning is, you must combine with this skill and knowledge, *character*, and possibly a certain personality—which, for want of a better name, has been termed, "magnetic"—before you can expect, as doctors, to win patronage. Avoid the reputation of being a coarse, rude, unrefined doctor. Avoid the reputation of being accounted hard-hearted. Doctors, in general, are often said to be hard-hearted, when they are, in fact, very tender hearted and sympathetic. People are unkind, they are not liberal and fail to make allowances, for the fact, that, seeing much pain and much suffering, one naturally comes to bear it better, and to make less outward show and manifestation. Why, is it not true, that the most timid and refined, nervous young women, upon entering the hospital-training school, and seeking to become a trained nurse, though overcome, at first, by the shocking things she sees and hears, eventually comes to regard these as mere trifles.

Physicians are not hard-hearted, because they do not *seem* to carry with them the worries, trials and tribulations of the sick room. It is enough that they must see all this, and be a party to it—don't demand then, that they suffer it with you. Did the physician not throw this care and worry off, when he left the sick chamber, he would be wholly unfit to visit his next patient, and would soon find his nervous system shattered. The doctor must be serious, it is true, but he must have a jovial spirit and demeanor on the outside—"bless the bully doctor." Be kind, be polite, deserve the name of being painstaking and careful. See to it, that you are an attentive listener. Never mind if people do tell us much that is uninteresting, and that has no bearing on their case. Every individual knows it is a great relief to be able to tell one's "story of woe." Therefore, listen and interrupt no man, "'tis discourteous, in fact, an insult to interrupt, and, speaking is silver, while silence is gold." If you will make it a point to be fifteen minutes early, to your office hour, instead of half an hour late, you will have time to give an extra word to each of forty-five patients. You will, thereby, afford them much pleasure, and may be repaid by hearing an interesting and instructive history. The Duke of Wellington once said to an engineer, who had proposed to meet him promptly at 5 A. M. "Make it fifteen minutes before 5. I owe all I have to having been ready fifteen minutes a head of time."

Physicians have the name of being tardy, and in their business relations, of being very *unbusiness like.* My word for it, gentlemen, you will gain much by promptness. The code of ethics does not forbid the employment of business means and measures, and the more closely you adhere to such a scheme, the easier and better will be your success. Keep a set of books, and methodically note down your professional and other affairs. Emerson, it was, I believe, who said, "our note books have ruined our memories." *These books* are, however, a necessity for the physician. Keep a record book of your patients, a history of every case. Herein keep a record of the prescriptions given, also. This will make your work intelligible, and the extra work will soon become a pleasure. No man can keep a mental account of his patients. His record book will save him many embarrassments. It is, indeed, the only way to practice medicine intelligently and successfully, and I marvel that it is not more commonly employed by the mass of doctors. How often we hear people say, "I believe the doctor has actually forgotten what he gave me last." Not infrequently this is true.

Be firm, gentlemen! A doctor who can be twisted under the finger is not respected. Give directions, and insist upon them being carried out to the letter, and *lived up to religiously*, else retire from the case. The patient's welfare is your good. Have him understand you are the doctor and he the patient, and see to it that he does not forget the relation of patient to doctor. If doctors owe obligations to patients, is not the negative also true? Be neat! An untidy doctor is a horrid creature. Your linen should be of the best quality and immaculate white. Your clothes need not be the conventional black, but they should be as good as the best. Be modest, unassuming, retiring—shun notoriety. The good physician needs not court newspaper comment. His deeds are his passports, wherever he be. Be particular about the company you keep—"tell me with whom you associate and I will tell you who you are." The doctor should not frequent saloons. By his example, no man should be persuaded to perish with delirium tremens, or with sclerotic (cirrhotic) liver, and, for my part, the tobacco habit—chewing as well as smoking, is obnoxious enough to be avoided by every doctor. The nicotine heart is bad, but the individual alone is the sufferer, whereas the delicate organism and sensibility of the ladies and children must be offended by the foul breath of a tobacco fiend.

Gentlemen, learn to please the children, cultivate their acquaintance and cater to their many little wants. No effort, upon your part, will redound more quickly to your good. At the same time, be sure you have applied yourself diligently to the mastery of children's diseases. Pediatrics is a most beautiful study and the children make our loveliest patients. The diseases, from which they suffer, are ordinarily acute. Acute processes afford us the greatest pleasure to watch and treat. Besides, the recuperative power in infancy and childhood is, at times, astonishingly great, and your labors will be very frequently crowned with success, when death's cold hand seemed a certainty. This will win for you a name, and if your knowledge is your stock in trade, *your name is your All.* Parents will call in the young doctor to see their babies and children, when they refuse to have him for themselves. They have an idea you are gentler, have nicer medicines and are better equipped to treat little ones. Probably this is true, since pediatrics is still a new branch of our science. At any rate, take advantage of the opportunity, it will be your introduction. Pediatrics brings obstetrics, and obstetrics brings general practice. One case brings another, children talk about you as they see you walk and drive through the streets, and when they fall sick they insist upon having you and no one else. Without any special effort, on your part, you will soon have the reputation of being "good for children's diseases." It is no trouble whatever to acquire this reputation. Don't make the mistake, however, of adopting this or any other specialty too soon. The specialist is only such in name, who has not had at least *ten years* of general work. He should then drift as it were into his special line, or choosing it, make ready and prepare himself for the special field. Many men fail, who have not seen the wisdom of this preparatory work, and have made too great haste into specialism. The practice of medicine is a foundation, specialism a superstructure. Medical men are, as a class, ignorant, at times, of certain so called specialties. This should not be. The general practitioner must needs have a good general and definite idea of all diseases and classes of diseases. He must be, then, a special diagnostician, and special therapeutician. Knowing your own weak points, see to it that they are strengthened.

I would especially remind you to make a detailed study and come to have certain, fixed conclusions about Physical Diagnosis. Learn, by close study, to recognize all phases of pulmonary and cardiac disease, and master the difficulties of abdominal exploration. If you do, you will be sought for by physicians, as well as by patients. Doctors are sometimes careless in these examinations, others are, unfortunately, ignorant.

Furthermore, study assiduously diseases of the skin and diseases of the nervous system. These will be found weak points with many men. Come to be called, not only a Practitioner, but a Student of Medicine. In your leisure hours, master the difficult anatomy of the brain and spinal cord. Few men know anything about Cerebral Localization—a thing at once of paramount importance to physician and surgeon, alike. Make a study of health resorts, of various mineral waters and of climatology. Don't be an *ordinary* young doctor, be an *extraordinary* one. This means that you must devote time, each day, to regular, methodical study. Apply yourselves diligently. I know a man in this city, loved and revered by a large circle of patrons and friends, respected and honored by his colleagues, almost above all other men, who, I heard say, has averaged four hours of study per day, during the past thirty-five years of active professional life. This man is a giant among men. In medical societies, at medical conventions, it matters not what the topic of discussion be, Dr. William Bailey can always, by his profound understanding, and eloquent speech, throw some light upon the theme. Provide yourselves with good magazines, and join several good medical societies, if you can. Buy the new, good books and keep abreast of the times. Make it a point to get value received out of each new book purchased. You can do this if you study it. Remember, medicine of to-day is not medicine of yesterday,and medicine of tomorrow will be different from that of to-day. People may argue with you, that "you are all right, but you are so young." Very good, do not worry about this, you will grow old quick enough. Say to them and explain that you mean no disrespect, but you would not exchange places with the oldest man in town.

The practice of medicine during your life time will see grand discoveries. Already anti-toxines, with which to successfully combat certain diseases are at your disposal. Time will, no doubt, come when each and everyone of the specific, infectious germ processes will be as successfully met, and as successfully treated. X-rays, with its manifest advantages in every department of surgery and medicine—asepsis and antisepsis—these are some of the creations and monuments of the present age. We, naturally expect others will follow,and may not some member of this senior class immortalize himself, and thereby his Alma Mater, by adding one more new feature to medical science.

Become experts, gentlemen, in the use of the microscope. In the histological laboratory, in the pathological laboratory, in the bacteriological and the chemical laboratories, you have had the benefits of teaching, which men, fifteen or twenty years your senior, did not enjoy. Make the best of these benefits now, and when you are out, continue these special studies. They are powerful aids to diagnosis, and if you are able to examine the various secretions and excretions of the body, and men know it, you will, during your first year, earn enough money to keep the wolf from the door. The young man cannot be too careful and painstaking in his diagnoses. Make use of every means at your disposal to come to a rational, satisfactory conclusion in every case, and do not underestimate the value of studying your patient as a *complete whole.* Before the appearance of the microscope, when little was known of chem-analysis, such men as Flint were enabled to make accurate diagnoses. How did they make them, do you ask? By a close study of the patient, at the bedside. They studied the physiognomy, they studied the diseases of the nervous system, manifest in the appearance and movements of the patient; they knew of *a sputum crudum*, *a sputum coctum*, *a sputum albumineuse*, and had many other names, which indicated knowledge of gross conditions.

The young doctor must be reserved in his prognoses. Remember the unexpected is always happening—he should talk little. The "wise owl" has earned this appellation by his silence; and the "silly goose and duck," though possessed of much understanding, have to blame the folly of their continued prattle and quack for this designation. Especially guard, as precious secrets, those things told you in the sanctity of the sick room. Here, the wife will confide to you secrets, which no other mortal knows. These are, and ever should be, *your own sacred* possessions.

Be slow to select a location, but having done so, seek promptly to become a permanent fixture in the community. Nothing so quickly assures the public of this as your early marriage, and here let me stop long enough to give you the advice of an unmarried man, who proposes to marry:—First, let us view the marriage from the standpoint of the lady, and, were I a lady, my friends, a doctor would be the last man on earth, whose hand I would accept in matrimony. There may be some honor in bearing the name of an illustrious husband-doctor, but the many trials and tribulations which this young wife shares, as her husband slowly mounts fame's ladder, coupled with the sore disappointment of his continuous absence from her, when once famous—more than overbalances and doubly outweighs the empty honor of being accredited a Mrs. Dr. Smith or Mrs. Dr. Jones. But, gentlemen, *we must marry.* Whether we wish it or no, the public and our patrons demand it. Your practice will increase many fold, when you once have a wife to look after your interests and care for your wants. People have respect and admiration for the young man who has seen his way clear to marry, and has had the courage of his convictions. But the woman of your choice must be *more than an ordinary woman* if you are to be for her, and for your professson, *an extraordinary man.* I shall say nothing about the fascination of her physical beauty. Each man must be his own judge in this matter, but be quite sure she is a robust, healthy helpmate, before the knot is securely tied. In the words of the illustrious David W. Yandall, "marry boys, marry as soon as you can see your way clearly through the hazy distance, but whatever you do, and for the good Lord's sake don't marry a pale, sickly-faced girl; she will keep you at home, practicing physic on her when you should be out, attending to your patients."

Man's highest aim and ambition should be to erect a posterity of which he may be proud. A sickly wife will defeat this noble purpose, But more, the doctor's wife must be a talented, refined and cultured lady. In order that her married life be congenial, she must have the education, which will permit her to have some understanding of his profession and his studies. She comes then to share his work—to enjoy it with him. She dare not be jealous, else the green-eyed monster assert itself, when duty calls him away from her. I know a young wife, who is jealous of the time her studious husband spends on his books. She told me, recently she was satisfied the doctor loved his books far better than herself—and the ladies demand, as you know, gentlemen, if we love them at all, that we love them well. Were you to ask me for my own, individual opinion in this particular, I should say they were wholly right. There is a time for work and another time for rest and recreation, and the wife has a right to demand some of her husband's recreation. The busy physician may find it difficult to enjoy the latter, but if you take care, you can educate people to a proper understanding of your rights. Doctors permit their friends, oftentimes, to loiter about their offices and consume much of their valuable time. Stop this, and devote your time thus spent, to your family. Do not attempt to have too many office hours. Those that you have, *keep punctually* and have your patrons understand that they are not to *run in* on you, at any and all times.

It is a mistake, I believe, to attempt to keep more than one office. It can never be done satisfactorily, by one man, and entails much labor and many hardships upon him. This one office had best be centrally located, and easily available by street car lines. By preference have office and residence together--with the office entrance distinct, where possible. Rainy days and other times, when you are tired and worn out after long watches you can be at home and rest, while keeping your office hours at the same time. Meanwhile you save considerable money by this arrangement, and need never be uneasy that your interests will be neglected when you are awav. You should have at least two large, well lighted rooms and better would be three. These should be clean —if they are tastilv furnished and cosy the more to your credit and gain. An association with an older man, as his assistant, is not ordinarily considered best, You will come to be called his office boy. If your finances will permit, start alone, swing your sign to the breeze, and waste no time in doing it. A practice can not be given away nor sold. The good will of another is not to be purchased, since people will only employ you if you are their choice. In your office, your desk and chair, and the chair for the patient, should be so arranged as to throw the best light in *his* face. Among other things it is *his* face which you desire to study, and he has not come to make any study of your own—people do not always show up to the best advantage in strong lights.

Have your own prescription blanks, with your name, office hours, etc., printed upon them, and use no blanks bearing the name and advertisement of a druggist. Druggist Smith will be jealous if your name is on his opponent's blank. Learn to write a perfect prescription. The druggist knows a man or at least judges him by his prescription writing, and this druggist feels himself free to criticise you, and will do it, if you write a poor prescription. The physician must always have an eye to his own, ultimate good, *but doctors should not be mercenary.* Few physicians grow rich. Remember this, and if your mind is bent upon amassing a fortune, keep out of medicine. Enter some mercantile pursuit, where fortunes can be made. Money blinds the better man within us. If a dollar be held close enough to the eye even the powerful rays of the sun may be wholly obscured.

Finally, gentlemen, let us not lose sight of this fact, *the world is dependent upon its young men.* Be inspired then, and have courage. You are young men. Energy, coupled with application, rarely fails of success. Demonstrate that you are energetic, prove that you are willing to apply yourself. Time will soon tell—the result is vouchsafed and "The Success of the Young Practitioner" is an assured thing.

I thank you heartily for the honor which you have conferred upon me to-night, and am, indeed very glad to have had the opportunity to address you.

No. 323 W. Walnut St.. Louisville, Ky.

Growth in Spondylitis.

Dr. H. L. Taylor at the May, 1898, meeting of the American Orthopædic Society, said, that a striking result of Pott's disease was its dwarfing effect. Growth in height is diminished by loss of substance, deformity, and malnutrition. The degree of retardation will depend in a given individual on the age of invasion. the location, amount, severity, and duration of the disease, and the hygienic and surgical management of the case. The ultimate result is usually a height (and weight) considerably below normal.

In early cases of average severity and duration, growth is much retarded up to the fourteenth year, from an inch and a quarter to an inch and a half being a fair rate, instead of the normal two inches and upward. A growth of one and a half to two inches, maintained for a considerable time, indicates that the case is doing remarkably well; very slow or absent growth in stature indicates that the child is not doing well. Puberty and general physical development are also retarded, and if the disease has ceased to be active there may be a late acceleration of growth from the sixteenth to the eighteenth year, and considerable gains may occur after the age of twenty. As the rate of increase in stature and weight affords valuable information in regard to the condition and progress, and practical aid in the treatment of these cases, it is suggested that measurments of the standing and sitting heights (and weight) of spondylytics be recorded from two to four times yearly. Such measurements covering a series of years would be particularly useful in enabling us to judge of new methods of treatment, as, for example, the method of forcible reductionr,

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MALARIA . . .

In all forms of malaria, including the pernicious types, the so-called "typho-malaria," and malarial cachexia, which are ordinarily refractive to quinine, Guaiaquin (*Guaiacol bisulphonate of quinine*) has proved of great value. Not only are the plasmodia eliminated more rapidly, but the anaemia or cachexia which usually follows an attack of malarial fever does not develop if the Guaiaquin treatment be continued for a short time after the typical symptoms have subsided.

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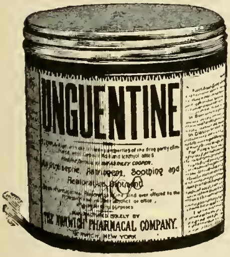

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The Induction of Premature Labor by Means of Glycerin.

Dr. Heinrich Saft has published an account of a method which he has devised for the induction of premature labor by means of glycerin. (Lancet, June, 1898.) After enumerating various other procedures employed for this purpose, such as irrigations of hot water, introduction of bougies, introduction of India-rubber bags full of fluid between the uterus and the fetal membranes, and the use of the colpeurynter, he says that they may require some days or even a week to preduce the effect and that glycerin is the most efficient substance at present known. Glycerin has a strong affinity for water, easily withdrawing it from the animal tissues and in this way irritating the uterine ganglia and nerves so that muscular contractions are produced. Its application is not free from danger, as it has been found to injure the parenchymatous substance of the kidney and to cause hemoglobinuria, destruction of the red blood corpuscles, shivering fits, and spasmodic dyspnœa. Various modifications have been suggested for the purpose of obviating these dangers. Teilhaber used rods about four inchea long, coated with a mixture of glycerin, gelatin, and tricresol. Flatau replaced these rods by elastic bougies. Dr. R. A Simpson injected three ounces of glycerin into the undilated os uteri of a primipara suffering from eclampsia and subsequently packed the cervix and vagina with plugs soaked with glycerin, but labor did not ensue and another injection of glycerin had to be given. The dilemma is that small quantities of glycerin are useless and large quantities are dangerous. Dr. Saft endeavored to devise a method by which a large quantity of glycerin might be introduced into the uterus without more than a very small proportion of it being absorbed. In the lying-in hospital with which he is connected Krause's method of inserting bougies was used, and if it failed a catheter covered with an empty India-rubber bag was passed between the uterus and the membranes. The bag was fastened to the catheter by thread tied round its mouth, and when it was in position it was filled through the catheter with from 400 to 500 cc. (from 14 oz. to 18 oz.) of a solution of lysol. It occurred to Dr. Saft that if glycerin were substituted for the lysol solution and animal membrane for the India-rubber bag, then the glycerin would be able to exert its power of withdrawing water from the tissues without much of it being absorbed. For the animal membrane he used the swimming bladders of fish.

Diffusion takes place through the swimming bladder, the glycerin withdrawing water from the uterus and fetal membranes and thereby stimulating the uterine nerves and ganglia so that the labor ensues. At the same time some glycerin diffuses outward through the membrane, but the quantity is too small to be productive of injury. In selecting swimming bladders for this purpose it is necessary to make sure that they will hold water ; most of those which are sold will not do so and all such must be rejected. They are then freed from fat by treatment with ether and afterward sterilized with an alcoholic solution of corrosive sublimate, the process being similar to the preparation of catgut by Schimmelbusch's method. When the bladder is drawn over the catheter about an inch is left between the bottom of it and the tip of the catheter ; the two are then tied together with silk When the instrument is inserted between the uterus and the fetal membranes about 100 cc. (3½ oz.) of glycerin are injected through the catheter, the lower end of which is then closed by means of a piece of Indian-rubber tube. The bladder must not be pushed high up into the uterus, but must lie directly over the internal os, and the bougie ought to be made of such a length as not to project beyond the vulva. Finally, the vagina is packed with iodoform gauze, which prevents the catheter from slipping out. No ill-effects to either mother or the child were observed. Of seven patients treated in this way four had injections of from 40 to 60 cc. (from 1½ oz. to 2 oz.) of glycerin, and the average duration of labor was about 108 hours ; the other three had injections of 100 cc. (3½ oz.) of glycerin, and the average duration of labor was about 52 hours. Dr. Saft considers that the result is not due merely to the introduction of a foreign body into the uterus, but that glycerin exerts a specific influence in consequence of its affinity for water. Strong solutions of sodium sulphate is another of the fluids which tend to absorb water by osmosis, and he proposes to make trial of it in the way above described in order to ascertain if it has the same effect on the uterus as glycerin has. The Edinburgh Medical Journal for January contains an account of a case in which three ounces of pure glycerin were injected into the uterus in the fifth month of pregnancy. The patient very soon had an intense rigor lasting more than forty minutes ; her face was cyanosed and wore a frightened expression ; her pulse was 45. These symptoms passed off, labor pains set in, the ovum was expelled entire, and the patient made an uninterrupted recovery.

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THE ABUSE OF THE DOCTOR.

This is a day of charities both public and private. The two chief necessities of charity are that it should come freely and unreservedly from the donor and that it should bring about ultimate good of some kind. The moment that one is compelled to give of his money, time or skill against his better judgment, it shows that there is something wrong in existing conditions.

There is one class of people, especially in our great cities, who are obliged to do so much charitable work, or we will say work for no return, that many of them are made poor in consequence. We refer to physicians as a whole. Even in what is known as a good paying community, the doctor's bill is always the last to be met. The butcher, the grocer, the tailor and even the undertaker are paid with promptitude, because that humanity consider it necessary. But the doctor, though he might have saved life and alleviated untold suffering, must either do without compensation or await a more convenient season. Among private patients the class who do not pay at all is not small. Every physician has so many poor acquaintances who pay nothing or families who once paid, but are now reduced and depend upon his courtesy in time of sickness. Boarding house habitues who often change residence are not a source of income to the doctor, as they silently flit away to parts unknown and leave no address, that he may still keep in pursuit of them.

Life insurance companies exact certificates without payment from the party being examined. So some cunning persons secure a gratuitous examination and diagnosis, for their own personal benefit without ever intending to take a policy, thereby depriving some other worthy physician of his fee for telling him that he is or is not afflicted with diabetes, mitrol, regurgitation or tuberculosis.

Also the medical examiner is so over crowded with work because he is on a fixed salary, that he can do no other business. Then later on, in case of the death of any patient who holds a policy, the family physician is obliged to give an extra death certificate to the insurance company without payment. This often entails a great deal of trouble, as it frequently requires it in the form of an affidavid signed by a notary public. There is no reason why the family doctor should be obliged to give free service to life insurance companies.

Then the medical code of ethics exacts gratuitous services for the families of doctors. Even ministers expect no bills. In some of these cases the physician is glad to render free service, but in others it is an imposition upon good nature that he should give of his time and service without return. It should be a matter of choice according to his own best judgement as to whether he charge for his services or not. Aside from all these private cases which we have mentioned, it is a well known fact that half of the inhabitants of our great cities are doctored free of charge, in a vast number of hospitals and dispensaries. We do not refer to the worthy poor for whom alone hospitals and dispensaries should be established, but to a large class of patients who gain entrance into hospitals by concealing their standing or still worse to those who are taken in indiscriminately by those hospitals and dispensaries which are operated for the purpose of giving students training and a small number of medical men professorships and public notoriety. By this means, a large number of worthy practitioners are deprived of their rightful livelihood. If the truth were known the doctors in our large cities has a hard struggle, and 50 per cent. cannot meet expenses.

We will not say that the doctor himself is not entirely without blame for the existing state of things. In the first place, in many instances, he does business in a loose way and does not insist upon payment in a business like way as do men in other professions and in other walks of life.

Important positions of surgeons and physicians in hospitals and public institutions pay nothing, but are considered honorary and the profession uses all political and religious influence to secure such positions and thereby degrade their professional standing. In the last few months, however, some physicians have waked up to the fact that a stand of some sort must be made against the present increasing abuse of the medical profession. They are beginning to realize that there is a necessity for self preservation and it is for this purpose that the New York Medical League was started. It has made a good beginning and if it succeeds in regulating and bettering the business affairs of the medical profession, there will be reason for personal gratitude to it from all the doctors of our great cities.

"THE LAW OF PSYCHIC PHENOMENA."

The grain of truth to be found in the mass of rubbish called mesmerism, hypnotism, suggestive therapeutics, etc., has been used as a foundation of monumental medical vagaries. What physician is there, who, almost daily, does not have to answer wild questions concerning marvelous cures produced by "Christian Scientists." Hypnotists, "Suggestive Therapeutists," and other quixotic knights of Hygeia? Perhaps one of the most harmful books of such vagaries is a book entitled "The Law of Psychic Phenomena," by one Hudson of Chicago. In this book the author alleges as verities the so-called phenomena of clairvoyance, telepathy, miracle cure, faith cure, and all the alleged phenomena of spirit manifestation; and seeks to establish the law of these "psychic phenomena." This law reduced to its simplest terms may be stated in this way: "since the soul has physical power, and is able to move ponderable objects, as it does in table tipping, slate writing, etc., it has only to think a thing to cause that thing to be; it has only to pray for a condition of the human system to produce that condition. The soul has only to believe."

This book is really doing so much harm that we cannot let it pass unchallenged. Its premises are false, for it assumes as facts the deceptions of legerdemain. It accepts as truths statements of charlatans, deceptions and false statements that have been amply proven such. Not only are its premises false, but its reasoning is illogical. No one has any right to use any methods of reasoning that are essentially illogical. The author does not define the mind, but in his division of the mind into "subjective" he complacently acknowledges that he does not follow the ordinary definitions of these terms; but in the manifestations of "the subjective mind" he complacently includes phenomena of automatonism produced by habits, education, etc., and the various phenomena of hysteria, trance, fright, anger, fever, melancholia, and various other nervous and physical disorders. He attemps to show that the subjective mind is a distinct entity not dependent on the physical mind or the body, yet in establishing his proposition he cites instances of patients who *in fever* quote passages in languages long forgotten, etc.—phenomena which may be produced by various stimulants and narcotics—conditions of *intense activity of the brain.* Yet this subjective mind, he calls the soul. He has no right to beg the question by asking us to assume "provisionally" that this soul has the power to make itself manifest to other persons, and to move ponderable objects. When he speaks of the physical powers of the soul he does violence to all the received definitions of the soul.

When, therefore, he asks us to believe all the miracles recorded in history and to believe that they were not superhuman, but may be produced by any one believing and praying; when he claims that these "physico-physical" powers of the soul may enable the healer not only to diagnose disease at a distance, but to cure it by prayer and meditation at a distance without the knowledge of the patient, we are ready to toss the book into the waste basket, and would do so were it not gaining adherents so rapidly.

CRITICISM OF SPECIALISM.

Specialties in medicine are not quite "as thick as leaves in Vallombrosa," but it is an interesting question as to when and where the multiplication and division of functions and duties will cease. Fashion has its votaries in medicine, no less than in dress. There is a commercial side to all customs, and it sometimes, even in the learned professions, overshadows the scientific. The world is in a constant struggle from the legitimate use to the abuse of its greatest blessings and privileges. The modern family now requires about six doctors to do its work, and if strictly "up to date," about ten. Only a few years ago, oculist and aurist were synonymous terms, and he did good work. Now the field, though limited, is entirely too large for one man. The former is too busy fitting glasses for astigmatism and ocular paralyses to bother about the ear, and the latter's time is too much occupied in writing about middle ear disease, and possibly removing exostoses from the nose and cauterizing the turbinates, to have any space left for the eyes. If a patient has la grippe, a lung specialist must be called to ascertain if these organs are sound. If one has been "seeing the town" the previous night the new fadist must be called to wash out the stomach. If the woman of fashion—leisure is out of date—in these days of devotion to clubs, teas, revolutionary societies, and public duties is dyspeptic and nervous, she rightly of course sees a gynecologist who claims all as his own from the diaphragm to the pubes, and yet removes a carcinomatous breast because the subject is a woman. The general surgeon, who possesses wider knowledge, may be permitted to remove a growth, outside of the abdomen, or a harmless bullet, is expected to become chiefly a dealer in bones and joints, and these he must divide with the orthopedist.

If the baby has a cold or colic, a child specialist, who has just hung out his shingle, and like his little patient, in a crude formative state, is called. While the neurologist is the omniverous soothsayer of all reflexes. There was once a delusion that he treated diseases of the brain and spinal cord, but the general practitioner is now unable to treat a case of typhoid fever without his aid in dispelling delirium and sleeplessness.

For incontinence of urine, due to errors in diet, as well as to disease of the prostate, of course the genito-urinary surgeon is the man of the hour; and for constipation and piles the rectal specialist is the only hope.

This is with little exaggeration, the condition of things in the populous cities of our country to-day, not to mention the hematologists and pathologists and etc.

What is its meaning? Is it necessary to confine the field to small areas in order to meet the capacities of the votaries of medicine?

"Doc. Sifers," unless in an isolated country district, is a relic of a past generation. May not something more than "an overcrowded profession," as true as this probably is throughout the Anglo-saxon world, be back of the vigorous protest of the Metropolitan Medical Press against the abuses of free dispensaries and charity hospitals—what is the relation of the latter to specialism? Are the well educated, scholarly and accomplished physicians and surgeons who have honored the profession of medicine to be bygones? We do not underestimate what specialism has accomplished, and its great service in pathology and in perfecting surgical technique. In one phase it is a protest against incompetence. Yet the inevitable tendency of confining research and work to very narrow limits, is to make men sectarian and bigoted.

No physician is so good a specialist, nor so accomplished a man, unless he adds to a liberal education the training and experience of a general practitioner of medicine, aided as every first class man must be by a natural fitness for his particular work. Otherwise he is too apt to look upon one organ, or set, as the entire organism, overlooking as he not infrequently does, the influence of the special upon the general, and the general upon the particular organism in the varied diseased states as in health.

The specialist does not now study general medicine, however useful it might be to his particular work. He is seeking business and reputation.

It seems to be a fashion with some surgeons and physicians to look upon it as a reflection upon their particular knowledge and skill to know anything about the general laws, symptoms, and treatment governing general diseases, as if they had no influence upon the special morbid states of particular parts and organs.

The medical tendency of our time to make specialists of students is greatly to be regretted. It is in great measure to sacrifice general and scientific learning for limited technique, and purely operative skill. It is not possible that such education and training can produce the best results. It does violence to the best aspirations for a solid foundation, broad culture, and enduring fame.

The young men are eager for early distinction and unfortunately too many resort to surgery for quick recognition and the early gratification of their desires, giving too little heed to the grave responsibilities involved. They are not disposed to give weight to the wise admonition of Paget, that in contemplating an operation the surgeon should give chief consideration to the welfare of his patient, rather than his own reputation.

The young aspirant is hardly able to distinguish between the weakness of imitation and the strength of special native talent and genius. He is too often a slave to authority, or in ambition to be original, oversteps the bounds of prudence and wise discretion, and, therefore, becomes dangerous. He should know early that in no profession is the classic maxim "*festina lente*" of such great value and force, as in the study and practice of medicine and surgery.

MORE ETHICAL CONDUCT WANTED.

In these days when malpractice suits are so common that no one, no matter how humble a practitioner he may be, is exempt from the danger of a possible damage suit, it is well for physicians to be more guarded in their utterances, especially about cases that have been treated by other physicians. Careful men, particularly city surgeons, who see the end results of many fractures for example are very loath to express an opinion that may later involve a fellow practitioner in a damage suit because they, perhaps, have been the subject of such a suit from the thoughtless word of another. Yet it is not in the field of surgery only that the reputation of an innocent man may be blasted by a carelessly expressed opinion of a man who probably knows nothing of the conditions existing at the time treatment was made. The physician usually starts the patient thinking about a suit for alleged damages, perhaps thoughtlessly or, perhaps, with deliberate intention to harm his rival. Even when he does not start the patient in this way, he is early consulted in regard to the chances for success of such suit. He can then by skillful handling of the individual prevent the suit going any further. No matter how just the claim may be, the physician should be slow to involve his fellow in a law suit, since it is a dangerous thing to let people feel that for any little dissatisfaction they may have with their doctor, they have simply to go to law for satisfaction. The number of malpractice cases, especially in the cities, is rapidly increasing. The idea is getting prevalent that if things have not gone just as they should, some one ought to be sued. Cheap doctors and cheap lawyers can always be found who will help out a patient once he makes his mind up to do something. This idea can easily be got rid of, if only more attention is paid to the Code which says: "No meddling inquiries should be made—no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed." Fortunately malpractice suits are not very successful, but even when not successful they cause the doctor much trouble and expense, and some damage to his reputation.

Let it be remembered that "medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue, or artifice."

PERSONALITY AS A MEANS OF CURE.

Recently a physician who has been successful in turn as a general practitioner and later as a surgeon remarked that he always made, or tried to make, the patient he was then examining and attending feel that he was his only patient. He further stated that this ability of giving the patient your whole attention was a most important element in the success of a practitioner. A surgeon who has had a great deal to do with the surgical diseases of children remarked once that the successful treatment of children consisted one-half in the management of the parents, or friends, one-quarter in the management of the child, and one-quarter in the treatment of the disease.

Remarks like these are worthy of a moment's thought, especially by the younger men who in these days of severe competition must use everything at their command if they would succeed. It really means that the mere diagnostician and drug-dispenser will not succeed unless he has the further qualification of impressing people with his own personality and of being able to manage men; in other words, unless he has qualities that would make him successful in almost any line of work. The young doctor fresh from his studies, bubbling over with information, wonders why his rival, who probably never was as well prepared theoretically to treat patients as himself holds those that come to him and even gains more. He fail to see that what patients want more than a careful exposition of their cases and more than drugs is a sympathy that inspires confidence, and a personal magnetism that is more powerful than drugs when rightly used. It is well occasionally to remember to treat the patient as well as the disease. One physician succeeds with a patient where another using the same remedies fails, when he can add to the treatment his own personality. Men who have made failures in other vocations frequently turn to medicine, thinking that here at least they cannot fail. They seem to think that anybody can be a good physician, no matter how poor he may be in other things, provided only, he can call himself a doctor of medicine. Yet few men possess these qualities of sympathy and magnetism, and that is the reason why so few men make successful practitioners and one reason why people change doctors so often.

THE ACQUISITION OF MODFRN LANGUAGES BY PHYSICIANS.

We in America need to remind ourselves often of the fact that in certain branches of medicine and surgery other nations are making more rapid progress than ourselves, and while boasting of our practical good sense in the treatment of disease, we need to remind ourselves that much of our so-called practical science is based upon work done by those theorists and vagarists whom we profess to ignore. The young student of medicine, therefore, whether he chooses to do so or not, will be compelled to learn one or more modern languages if he is to keep pace with modern medical and surgical science. This much, however, can be said for his encouragement, the facilities for the acquisition of modərn languages are now so numerous that a young physician can learn a modern language in a short time at his leisure moments, studying as Cuvier studied while traveling in his carriage from one patient to another, or as Charles A. Dana studied Russian in the last few years of his old age—at his breakfast table. It is highly necessary for the English speaking medical student to learn German. There is more medical literature published in German than perhaps in any other two modern languages. It is not enough for us to say that most of it is impractical, nor that it is quickly translated. But a comparatively small amount of it is translated, and translation always detracts from the clearness. Knapp remarks that at the International Medical Congress held at Moscow last year: "as to the languages used in the proceedings, the German had the lion's share, the French came next, then the English, and last the Russian." In the proceedings of the Ophthalmological Section of that Congress, Dr. Nieden remarks that of the 94 papers and demonstrations presented, 48 were in German, 44 in French, and 2 in English.

But French is the international language of polite literature. It is perhaps as much to-day the language of diplomacy as in the time of Charlemange, it was the language of the Court. And Japanese medical students abroad, as a rule, first acquire the French language. They consider it more of an international scientific language than the German or the English which they consider international commercial languages.

At the Pan American Medical Congress held at Mexico, French stood next the English language in importance, as it stood next the German at Moscow. A reading knowledge of the French is more easily acquired than is a reading acquaintance with the German, especially by a medical student at all familiar with his college Latin. One can learn to read medical French in a short time in his leisure moments without a teacher. To learn to speak it, it is, of course, a more difficult task, but it is a task not at all obligatory. Medical men are hardly to be excused therefore, from learning to read medical German and medical French; and a mastery of Spanish which follows almost of course, would very greatly facilitate the interests of Pan-Americanism.

MEDICAL EDUCATION.

The subject of medical education is a large field and merits at this particular period of the woild's history grave attention.

The medical man should possess (which he does not so often at the present time) a species of universal knowledge, and I think more important is this acquirement of his than probably it would be in any other vocation.

It is demanded of him to be attuned to every intellectual movement at play in the realm of his environment, and in a generic sense to be also in touch with the movements of the world. We take it that this demand is an essential condition and requirement to the formation of the ideal physician. General knowledge must ever constitute the foundation, or substructure, of particular or special; alike in medicine as in all scientific progress.

This comprehensive range of knowledge upon the part of the physician, is probably more demanded of him than others, because his activities include in their embrace a universal kinship to science, and in a sense a greater share of the levers which to-day keep the world in motion.

The laws of mechanics, banking, civil and criminal law, politics, religion, literature, internecine, and international controversies and many others (if not most of them) of the attainments towards progress, should be to a degree at least, a part of his fitness for his work; to say nothing of his thorough mastery of the branches of his chosen calling.

Postulating this then, as a fact, I wish to say that the medical world is deficient in this regard, and I fear becoming more so each decade, in recent years, as we advance towards specialism.

Specialism ripens on the wrong kind of a tree, and, in many instances, it becomes a sort of aborted product.

In this age, as it appears to me, the tendency of its spirit is from particulars, to generals, in this regard.

Felling a tree, and commencing at the top-most branches, to trim it, instead of at its base, and proceeding upwards, would be scarcely less scientific.

The suggestion I would offer as a remedy to all who have to do with fitting men and women for this toilsome vocation of medicine and surgery, would be to more greatly encourage literary culture, also a greater familiarity with the practical aspects of life, together with a knowledge of general practice, to be acquired by ten or more years only, in this field of operation, *ere* specialism is thought of.

Of course, special study as now too generally conducted, does not account for all of medical deficiency, but that it is a telling factor therein, no one will deny.

This is a mere hint, for your consideration, but I trust will serve to stimulate the readers of this Journal, to add their assistance in this direction, that we may, as medical men, the sooner meet the demands, commensurate with others, of the present age.

THE CAUSATION OF NEURASTHENIA.

While there has been an abundance of literature bearing on neurasthenia, nervous prostration, or nervous exhaustion as it is called, there has been but little satisfactory explanation of the cause of this simple disease with its myriad of symptoms. One reason for this, I take it, is the assumption that there is no pathology accompanying it. The nervous symptoms which have been described with such elaborateness make several different groups, giving as many separate diseases apparently, and yet each group, either alone or combined with the symptoms of any other group, has been called neurasthenia. The common point at which they all touch seems to be a general agreement that there are no consistent, definite. and unvarying pathological conditions underlying the disorder.

Hysteria used to cover much of the ground which since Beard's time has been pre-empted by the writers on neurasthenia. Simple melancholia without delusion has also been absorbed, and the most striking and positive cases related by many writers belong to this mild insanity. It is, perhaps, not altogether strange that neurasthenia with no definite lesion should be made to cover many nervous disorders which though similar are without positive demonstrable lesion. It is certainly true of most other disorders that the definite pathology of the sickness has been a strong basis from which other disorders are differentiated. This is more likely to be true when we have a pathological basis than when we have a clinical basis.

Differentiation, when we have positive facts is easier than when we have voluminous testimony from various clinical observers only. One does not hear much of the theory of posterior spinal anæmia nowadays, neither does one hear very much of functional disease; nor do we see as many symptoms set down as reflex nervous disturbance as was formerly the case. Some two or three years ago when lithæmia became fashionable, hope sprung anew that here was the veritable factor which caused neurasthenia. Later the theory of the inhibition of the solid excreta of the urine, taken as a whole, and without reference to any special crystal, was used as an explanation of the cause of neurasthenia, and seemed to have very substantial foundation in clinical facts.

The truth is that many operators, especially gynecologists, who had patients in hospitals where they could be carefully and leisurely examined before and after operation, found that the urine was often queer and many theories were advanced to account for this condition. An attempt was also made to connect certain nervous phenomena with definite abnormalities of the urine. No doubt these observations led to better practice and to the avoidance of many surgical accidents, but nothing has as yet been clearly demonstrated which makes us believe that the disordered kidneys caused any one definite group of neurasthenic symptoms with unvarying regularity. These abnormalities of the urine, such as the excess of earthy salts, or the lightness of the specific gravity, with albumin or casts, are often transient and do not seem to be uniformly associated with any definite group of neurasthenic symptoms.

Examinations of the blood taken in connection with careful observations of the urine, and with carefully made records of the bodily temperature have seemed of late to point to certain definite causes of neurasthenia. Especially is this true regarding the conditions of bodily heat. A large number of observations of patients having continuous nervous weakness or exhaustion. with or without mental depression, show a sub-normal temperature in a large proportion of instances. This sub-normal temperature precedes for a long time actual mental disturbance also. A study of this sub-normal temperature impresses one as being the most constant physical sign accompanying neurasthenia. This is not true of purely hysterical states which are so often classed as neurasthenic conditions. This latter disorder being mainly a disturbance of the emotions, the intellect may occasionally be submerged but rarely disordered.

Neurasthenia, on the other hand, borders on that condition of melancholia so closely that we have for many years thought that the mental disturbance was the essential element of all true neurasthenia, and that the brain rather than the spinal cord was at fault. The coincidence of persistent and continuous sub-normal temperature lasting for weeks in so many cases, both of so-called neurasthenia and also of mild melancholia without delusion, would seem to point to the common origin in the brain.

As to the secretions, it is well known that the emotions disturb the digestive functions and pervert the natural processes of metabolism within the body, so that the excreta are altered. These emotions may be transient or they my be persistent—they may be natural or unnatural, from external causes or from internal causes—and the condition of the urine would show very largely the extent of this emotional disturbance.

Unfortunately, the appropriate and rational treatment by diuretics and diluents does not always bring about definite results. A careful study of sub-normal temperatures and of the means that will relieve this state—which we do not yet seem to have at hand—will probably give more definite results in the treatment of neurasthenia.

AUTOGENOUS DISEASES.

The discoveries in pathology and therapy during the last decade afford just cause for satisfaction and congratulation; discoveries which augment the armamentarium of the physician, equiping him for successful combat with disease, the common enemy of mankind. As important recent discoveries my be mentioned organo therapy, serum therapy, Behring's serum in diphtheria, Maragliano's in consumption, Sanarelli's in yellow fever, and numerous tests of De Remzi's antipneumonic serum, applied in cases with success, adds one more to the number of remedies in serum therapy. (*Gazetta degli ospedate e delle cliniche*, Naples, Feb. 13, 1898). Of all these discoveries and many more the profession of medicine may deservedly boast as the legitimate product of patient and searching investigation.

Notwithstanding these brilliant achievements progress has not been uniform along the whole line, certain sections having been at a standstill, and thus having fallen far to the rear in the onward march of medical science.

Disorders produced by toxic material generated within the body have been studied but little, comparatively, and therefore definite knowledge of their pathology is slight. The literature devoted exclusively to the subject is meager; so far as we know it consists of a small book on Auto-Intoxication in Disease by Bouchard, of France, and another entitled Ptomains and Leucomains, by Vaughan and Novy, of this country, both being valuable contributions to the subject of autogenous diseases, the latter containing a great deal of technical information that inspires one with the scope and importance of the subject.

Auto-intoxication is usually manifested by an elevation of temperature, coated tongue, anorexia, headache, a sense of weight in the limbs, and, sometimes, constipation; in short, the symptoms are not unlike those of the prodromal stage of typhoid fever; indeed auto-intoxication has been mistaken for typhoid fever by some of the best clinical teachers. No doubt the real condition of those diseases diagnosed incorrectly as "malaria," "biliousness," and "typho-malaria" is one of auto-intoxication. Suggestive of this idea is the fact that those cases are frequently relieved by a cathartic and the administration of an intestinal antiseptic. An understanding of this important class of diseases involves a more definite knowledge of the processes of assimilation, elimination, and metabolism; a normal relation of which processes is essential to good health.

EARLY DIAGNOSIS OF TUBERCULOSIS OF THE LUNGS.

Probably no one will question the value of the earliest possible diagnosis of tubercle in the lung, for it is then that help can most easily be given and it is then that change of environment gives the best hope for the patient. There is little question that the diagnosis of tuberculosis of the lungs is often made by the patient's family before it is recognized by the attending physician. Recognition of the disease in this stage is no credit but shows a most careless observer. To get the best results from treatment it is essential to recognize the pretubercular stage and to treat the patient before the physician can clearly demonstrate, even to his own satisfaction the undoubted presence of the disease. This is the stage when the tubercle bacillus cannot be shown in the sputum; in fact the patient has many general symptoms, but few that call attention to the lung. It is this stage that is so often treated for simple anæmia, for general debility, for indigestion, and in women for amenorrhœa, even a careful physical exploration which would put the physician on his guard is rarely made at this time, as the symptoms do not warrant it, unless the routine practice of examining all patients carefully is adhered to. Yet a physical examination will reveal much; percussion shows little beyond a possible tenderness at some point where the patient has had pain previously. It is believed that this is a little tubercle forming on one of the pleural surfaces and that the pain and tenderness are the result of a dry pleurisy. Infection does not come from inhalation always, but from infection of the oral cavity, from teeth, breaks in the mucous membranes of tongue, etc., as there is a direct lymphatic connection between the oral cavity and the stomach of the pleura. Auscultation shows possibly a slightly roughened sound, the very faintest of friction sounds heard only after a full inspiration when the patient unconsciously expires a little, though told to hold his breath. His sound heard only at one point is important. Again a hesitating inspiration or expiration on one side should always suggest the possibility of beginning serious lung trouble. A temperature above normal in the evening, no matter how slight, which is constant is an important sign of early tuberculosis, provided the morning temperature is normal. A subnormal evening temperature while less frequent is also suggestive of trouble. A persistent cough which on most careful examination of the throat is not found due to trouble in the throat, no matter how slight it may be should always demand a thorough examination of the chest for possible tuberculosis. Of course early examination of the sputum should be made for the tubercle bacillus as soon as there is any expectoration. In a word, where patients complain of getting tired easily, of slowly running down and losing flesh, make a careful physical examination of the chest, even if there is no cough present. It may be the pretubercular stage, and diagnosis in this stage is most important for the patient.

PRONUNCIATION OF MEDICAL TERMS.

A very exact medical author remarks: "Hence, among those (medical practitioners) deserving the confidence of the people we sometimes meet physicians whose mode of using, and particularly of pronouncing, terms in common use by writers is quite unpleasant to the classical scholar: and educated persons are led to suppose such physicians as little acquainted with medical science and medical literature as they appear to be with the derivation, the meaning, and the pronunciation of the technicalities with which our literature perhaps unnecessarily abounds." How many of us pronounce correctly all of the following words:

Posterior,
humerus,
pes ancerinus,
gaseous,
two-legged,
conjunctiva,
adipose,
eustachian,
conduit,
olefiant,
exhaust,
masseter,
vaginal,
theine,
iodoform,
resorcin,
guiacum,
squamous,
ramis ischii,
scalenus anticus.

Not one of us pronounce all of them correctly, I warrant. Which makes me remark that many medical terms have changed and are changing their etymology. To be accurate in their use, therefore, we must not depend upon an old pronunciation. While usage must be our guide, we must not think ourselves at liberty to endeavor to establish usage. The tendency is to Anglicize all foreign terms. Euphony exercises very little influence in establishing the pronunciation of a term, since what would seem euphonius to one person would seem dissonant to another.

We can not be guided by the pronunciation of any single scientist. One of the best demonstrators of anatomy in the United States is notorious for his use of the following incorrect pronunciations:

Alveo'lus, anus, phrenic, alveo'lar, modio'lus, pisiform, gracilis, foram'en ovale, cun(e)iform.

All incorrect. What then shall guide us? I reply: 1st. The best usage of the best scholars, as indicated in the best dictionaries. 2d. The rules of philology.

First, then, let us consider rules for accent: 1. Nouns of two syllables have the accent on the first syllable; hence, it is as'phalt, not asphalt'; a'zote, not azote'; caou'tchouc, not caoutchouc'; lit'harge, not litharge'; gam'boge, not gamboge'. 2. Words of more than two syllables: (a) When the penult is long, have the accent on the penult; hence, platin'ic, not plat'inic; prope'nyl, not prop'enil; anti'cus, not an'ticus; uran'ic, not u'ranic; tellu'rous, not tel'lurous. (b) When the penult is short, the accent is thrown upon the antipenult (the rule for quantity of vowels can not be given here); hence, im'potent, not impo'tent; mer'curous, not mercu'rous; pen'tyline, not penty'line; phos'phorous, not phospho'rous; gly'collate, not glycollate. 3. There will be as many syllables in Latin and Greek words as there are vowels in the words; hence, py-ri-tes, sys-to-le, syn-co-pe, di-as-to-le. 4. Remember that the Greek termination itis has long i; hence, irítis, gastrítis, bronchítis. 5. In the pronunciation of Latin words the "English method" is to be preferred to the Roman or the Continental. 6. C is pronounced like k before a, o, u, and like s before e, i, y, æ and œ. 7. G, in Latin words, is pronounced hard before a, o, u, and soft (like j) before e, i, y, æ and œ; hence, fragile, fraj-il, tergiversation, ter-jiv-er-sa-tion, malpighi, mal-pi-ji. 8. Proper names and words derived from them conform to the peculiar personal pronunciation of those names; hence, dahlia, fuchsia – fooksia, quassia–quoshia, peyer, etc.

These eight suggestions if carefully heeded, avoid many embarrassing slips of the tongue.

NO SEX IN MEDICINE.

This dogma although very old is like many others of its kind—bound to go down in the evolution of civilization. That there is sex in medicine is proved by the fact that thousands of women physicians are working shoulder to shoulder with their brothers.

There are two kinds of women who demand women physicians: those who believe that because one is a woman she knows just what a woman needs, and that her personal experiences must necessarily give her all the required qualifications: and those who demand exactly the same technical training in a woman, irrespective of her natural adaptability, that they expect to find in a well trained man, and who go to the woman for the greater freedom of speech, the readier sympathy of the woman, and from the dread of submitting to a physical examination by a male physician. The former class do not exact scientific work, the latter do, and nothing based on any form of superstition will take its place.

The mothers of a generation ago, who spoke of all matters pertaining to sex with bated breath, and who did not know that they had any "organs," view with ill concealed disgust the constant and never ending running of the younger women to the gynecologist, and say that if our civilization is making it necessary for such things to be, let us at least go to women.

Women in the profession find that eight out of ten of the patients who come to them, come originally for either obstetrical or gynecological work.

The only *raison d'etre* for women in the medical profession is to attend to women in diseases peculiar to them. Women physicians may be, from a mental standpoint, qualified for any branch of the profession, but first of all let them fit themselves to do absolutely scientific work among women. Natural fitness, intuition, and experience as mothers will not take the place of work that is up to the standard of that of the best male practitioner.

NEURASTHENIC WOMEN.

Neurasthenic symptoms in women, as well as certain symptoms of insanity, frequently depend upon abnormal conditions of the genital organs. Uterine subinvolution, with its sequelæ of relaxation, congestion and resulting malposition; endometritis with its pelvic engorgement or reflex irritation; subacute or chronic disease of the uterine adnexa interfering with the menstrual functions; all these often bring about a condition so closely resembling neurasthenia, pure and simple, that it behooves the physician always to consider them before making his diagnosis. Patients complaining of neurasthenic symptoms extending over months, or it may be a year or more, have sometimes been treated in a perfunctory manner for nervous prostration or neurasthenia without much attention to local conditions, when a careful inquiry and examination would have shown the general condition to be the result of a local cause, which could have been easily cured in the beginning by appropriate treatment. If the examination of a neurasthenic woman shows any trouble with the genital organs, except mere lacerations which are not in themselves incompatible with health, it is safe to assume that this is the cause of the symptoms and to institute treatment accordingly.

In our Southern States, as well as in certain parts of New England, a species of starvation, due to improper feeding, often accompanies and aggravates these conditions. This is to be corrected by a revision of the diet—by the use of fresh milk and meat in generous quantities, with the temporary exhibition of proper aids to the digestive process. Treatment in all these cases should be general as well as local, and by local is meant whatever may be necessary, whether topical applications or operative procedure. Broadly stated, general treatment should aim at improving nutrition, circulation and excretion. Local treatment should be operative or not, according to the requirements of the case, and would be much the same as for similar conditions in which only the ordinary symptoms are observed. It may be laid down as a general rule that the longer the duration of the symptoms the more likely the necessity for operative treatment, and *vice versa.*

THE IMPORTANCE OF MINUTIÆ.

There seems to be a tendency at the present time to depend almost altogether on local applications and operative work in the treatment of women's diseases; and, except with those who believe in the use of electricity, very little stress is laid upon anything else even in our schools and clinics. In fact, to use the words of a hospital assistant, "there seems to be a morbid desire" on the part of students and practitioners alike "to see hysterectomies," and this is catered to on every hand. While so much interest is manifested in major operations, too little attention is often given to minor procedures and to the minutiæ of preparatory and after treatment. Operative technique is regarded by many as practically the whole business, whereas it is only a part of the whole. The preparatory and post-operative management, while not so difficult, is just as important, and because of the minutiæ involved, is often hard to carry out in a proper manner.

This is all probably due to the marvelous advance made in gynecological operations within the last few years. But is it not possible that the glamour of these brilliant operations may so dazzle the gaze of the majority that they may forget or neglect those smaller things which are not less essential, and without which no one's preparation for the treatment of women's diseases is complete? In the general scramble to see and to do these operations is there not also a neglect on the part of many to give sufficient thought to the question of diet, exercise and medical treatment? Much time and care are spent in perfecting the sense of touch, and in gaining a familiarity with the differences between healthy and diseased pelvic organs, but very little attention is given to the general state accompanying each local condition found, which is, as the case may be, the cause or the consequence of such condition.

Above all things, the physician should aim to be broad and thorough in his work. He should attack disease from every point, using as weapons not alone the forces of art, but those also which nature provides. He should marshal these forces like an army, assigning to each its proper place, and while he attacks the enemy in front he should not neglect flank movements which threaten the rear and the base of supplies. He should be ever watchful and wary, neglecting no means to attain his end, and while manning his big guns in the way of operations, he should never leave them unsupported by his small arms, his skirmishers and sharpshooters, since upon these often depend the issues of battle.

THE ABDOMINAL OR VAGINAL ROUTE FOR PELVIC OPERATIONS.

For several years this has been a mooted question, this man leaning wholly to the abdominal route; that man to the vaginal—each strenuously upholding the merits of his own side. Others, accepting a golden mean, recognize merit in both methods. It is not to be denied that each has its advantages as well as its disadvantages. Nor can it be truthfully climed that either is devoid of danger. If the abdominal route involves more handling and exposure of the intestines, and consequent danger of peritonitis, the vaginal offsets this by the increased risk of hemorrhage and perforation of the intestines and bladder. If the one offers a freer field, a better view of possible complications and of what is to be done, the other leaves no abdominal wound as a source of infection or hernia. If in the one there is more danger of contaminating the abdominal cavity, in the other there is more difficulty with adhesions and complications.

Probably no one will assert that certain cases of pelvic disease may not be better attacked from above, not that certain other cases may not be better gone at from below, but many probably will hold that eight out of every ten cases should be done either this way or that, according to the side on which they are arrayed.

Some men use better the one hand, some the other, the work being equally well done in either case. So some men choose the one route, some the other, this being largely a matter of training and experience. It seems, therefore, that the question has narrowed itse,lf down to this: that after the elimination of those cases, such as very large solid tumors for instance, which are admittedly better handled by all in the same way, it becomes a question of men rather than methods. Hence it becomes the duty of every man to choose that route by which he can do his best work, and secure the best results with the greatest element of safety for his patients.

HEART FAILURE.

For the last ten to fifteen years this term has been very popular among physicians as a cause of death, but it is probable that those who use it must have no definite idea of the pathological condition which leads to the fatal event. The term implies nothing but death from some undefined and unknown lesion, and there is ground for presumption that it is generally used to cover ignorance of the efficient cause. It is significant that, in cases where autopsy has been made by a competent person, no such vague cause is assigned to a death generally sudden and unexpected.

The present writer has been convinced, for many years, from post mortem section and inspection of the hearts of a number of persons who died suddenly, that heart-clot is often the agent which brings on that catastrophe commonly called heart-failure. The clot, according to its bulk and hardness, impedes free action of whichever chamber of the heart it may occupy, so that its operation is simply mechanical, and its danger is directly in proportion to its bulk.

Inasmuch as the coagulum most commonly results from obstruction and slowing of the blood-current from valvular disease, which may exist for years without the knowledge of the subject, it is obvious that growth may be in progress for weeks or months without urgent distress, and perhaps without suspicion of danger. The existence of some intercurrent inflammatory condition like rheumatism or certain infectious diseases, or of Bright's disease, may then lead to rapid increase of the clot beyond the point of tolerance, or some sudden muscular exertion or mental disturbance may tax the organ beyond endurance. If no previous lesion had been discovered by medical examination, and no opportunity be afforded for autopsy, the physician who reaches his patient before death yields to the importunity of relatives and friends, who are averse to the services of the coroner, and makes a guess as to the cause of death. Twenty-five or more years ago "heart disease" was the favorite refuge of the puzzled medical man, but latterly the intelligent part of the publtc have learned that there are a good many heart diseases, and the doctor feels ashamed of resorting to the old worn-out disguise of ignorance. For the present most of the public are satisfied with "heart-failure"—at any rate do not laugh at it—and it will answer until worn into shreds.

In the opinion of the writer, the honest course is the best. If the medical attendant is in doubt, let him demand an autopsy at his own hands, or turn the case over to the coroner. who will make one, if he does his duty.

LYING-IN PATIENTS.

At what stage of the lying-in may or should the medical attendant leave the patient to nature? Naturally some one will say "when she is well enough." But what is well enough? The patient sitting up with a normal temperature? I think not. The prevailing idea that after ten days the medical attendant can be dispensed with permits much shifting of responsibility on the part of the physician. It is impossible to tell so soon after labor the condition of the cervix, for instance, or whether nature will be able to restore the parts to health.

At the end of the second week an examination with the speculum should be made as well as the digital examination in order to ascertain the condition of the cervix, the position and size of the uterus. The question of immediate repair of bad cervical lacerations is still in dispute, and like that of immediate repair of complete rupture of the perineum will probably so remain for some time to come.

In almost every case the speculum will reveal a congested purplish looking uterus, with ragged, gaping os, granulations and thick, tenacious mucous hanging from the lips. If there has been no previous disease of the organ this condition will be readily cured. Now is the time to take advantage of nature's efforts and assist involution of the uterus, ligaments and vagina, by the application of medicated tampons, hot douches, and electricity.

Nature is not always equal to the task of leaving a woman in as good a condition after parturition as before and the obvious duty of the accoucheur is to supplement nature.

When, therefore, involution is complete, when all the little or big lacerations are healed, discharge ceases, the os presents a normal pink color, and the mother, in fact, is well and in good condition, the physician may consider that the puerperium is at an end and the patient may be discharged.

THE PHYSICIAN AS A BUSINESS MAN.

A medical journal of the present day is hardly complete without some reference to the physician as a business man and when there is so much smoke there must be fire. The commencement day orator who used to proclaim the physician's calling above the mere strife for "filthy lucre" now calls attention to the fact that the physician has been woefully negligent to himself and family by not combining business principles with his noble calling. A good deal of this poor management can be laid to the men old in practice, those who sent in their bills once a year or semi-annually. This plan may be well enough in rich farming communities, but in the larger towns and cities if carried out the doctor's cupboard will soon be like "Old Mother Hubbard's." The people in the larger cities, to quite an extent, "fold their tents like the Arabs and as silently steal away," cheating the landlord as well as the doctor. There is no reason why the physician should not send his bills monthly, and if no response is made during the following month go and find out where the trouble is. Short accounts make long friends, and the man that owes the doctor a bill is ever ready to damn the poor doctor with faint praise. The writer has collected at least 85 per cent. by following up accounts close, and people do not take offense so much as one might imagine. It is a good plan to carry in the pocket a small book containing a list of debtors with amount due, and when some anxious (?) debtor meets you on the street there will be no need of telling him to come to the office so you can look it up. Never haggle over your bill, but state the amount and stick to it.

BOOK REVIEWS.

A TEXT BOOK ON ORTHOPEDIC SURGERY. By E. J. FARNUM, M. D., Professor of Orthopedic Surgery and Clinical Surgery in Bennett Medical College, etc. Assisted by EDWIN FREEMAN, M. D., Professor of Didactic Surgery in the Eclectic Medical Institute; also by EDWIN YOUNKIN, M. D., Professor of Surgery in the American Medical College. Profusely illustrated. Published by Chicago Medical Book Co. 530 pages, price $5.00.

This is a fine book for advanced students, and a helpful work for the busy practitioner. It is presented to the profession by Prof. Farnum who has had quite a large experience for a great number of years in the care and treatment of the different lesions comprehended in such a magnificent work on orthopedic surgery. The subjects have been systematically arranged with a clear and concise delineation—brief, but sufficiently elaborate to cover the ground. The book deals very fully with all subjects pertaining to the branch, and comprises many subjects not ordinarily included in orthopedic surgery. They have been incorporated here so that the work should comprehend all deformities that may be met with in general practice.

The chapters that contain subjects that are of rare occurrence, and especially those in which treatment is of but little avail, are handled briefly, while those deformities which are of common occurrence are detailed at considerable length. The routine followed in writing of each deformity, is as follows: Definition, Synonyms, Etiology, Pathology, Symptoms, Diagnosis, Prognosis and Treatment. Under Treatment much consideration has been given to the *prevention of deformities* as well as to the correction. Medical treatment, the treatment by the use of mechanical appliances and the operative treatment have received a careful delineation. The work is superbly printed and handsomely bound, and is one of the most valuable and useful books presented to the profession for a long time.

BRIEF ESSAYS ON ORTHOPÆDIC SURGERY. By NEWTON M. SHAFFER, M. D. New York, D. Appleton & Co., 1898.

This little work contains seven very interesting and charmingly written essays on Orthopædic Surgery. They have heretofore been published in the New York Medical Journal, Boston Medical and Surgical Journal and the Medical Record. It comprises a volume of Eighty-one pages. It gives the present status of orthopædic surgery; tells what it is, the scope and relation to general surgery, with the present needs of orthopædic surgery.

The last chapter is devoted to the operative side of orthopædic surgery. It has a nice binding and is neatly printed.

ATLAS OF LEGAL MEDICINE. By DR. E. VON-HOFMANN, edited by Frederick Peterson, M. D., assisted by Aloysius O. J. Kelly, M. D. Philadelphia: W. B. Saunders, 925 Walnut St. 1898. Price $3.50 net.

What the actual clinic is to the student, this book is to the practitioner. It contains 56 plates in colors, and 193 illustrations in black. There is probably no field of science in which the value of illustrations is greater than in forensic medicine. The problems which confront the coroner, the post-mortem examiner, and the courts of law must be solved by the presentation of indisputable facts. Many of these facts can be fully appreciated and understood only by the medico-legal expert of years experience. But a volume such as this, made up chiefly of photographs and original drawings of various lesions and pathological conditions, taken directly from actual cases, supplies to every physician and student an enormous array of medico-legal data, such as would take one many years to acquire alone and unaided. This volume is a veritable treasure-house of information, gained from the rich material of one of the greatest institutes of legal medicine in the world, and collected by one who was, perhaps, the ablest living expert in his chosen domain of work. The work occupies a distinct and valuable field of its own, and it will be appreciated fully by the profession.

A MANUAL OF INSTRUCTION in the Principles of Prompt Aid to the Injured. By ALVAH H. DOTY, M. D. Second Edition. New York, D. Appleton & Co., 1898.

At all times and in all seasons this is a most useful and valuable little book. In these war times this work is particularly opportune. It instructs those who are desirous of knowing what course to pursue in emergencies, in order that the sick or injured may be temporarily relieved. Special effort has been made to so arrange the matter and introduce such points as will be of use to the ambulance corps connected with the different military organizations. The author states in preface that in order that the subject may be well understood it is essential to know something of the construction of the human body and of the functions of the different organs. For this reason considerable space has been devoted to anatomy and physiology. The author has explained each subject in a plain and simple manner and when medical terms have been used their synonyms are also given. The work contains many illustrations which are good and make the work more intelligible. We know of no work that will serve a more useful purpose.

OUTLINES OF PRACTICAL HYGIENE. By C. GILMAN CURRIER, M. D., Associate of the American Society of Civil Engineers: Fellow of the New York Academy of Medicine, etc. Third Edition, Revised and Enlarged. New York: E. B. Treat & Co., 242 and 244 West Twenty-Third St. 1898.

This valuable work incorporates all of essential progress in sanitary science and practical hygiene that has been established up to the present time. This being the third edition of the work in a short time, and as all the other editions have been completely exhausted, shows that the book is appreciated by the profession as it certainly deserves to be. It is a most serviceable compendious work upon practical hygiene, embodying the most modern truths, and is especially adapted to American conditions. It is clearly seen that the main principle throughout the entire work has been to maintain a judicial attitude in every detail, allowing no scope to vagaries. Accepted truths alone are embodied in the teachings of these chapters. Being a book devoted strictly to the prevention of disease, it does not discuss therapeutic measures, except in so far as they belong legitimately within the domain of hygiene. The book contains nearly 500 pages. The style of the writer is clear and forcible, using simple expressions and the most intelligible terms. The book elucidates the truths of science and does not mask them.

MODERN GYNECOLOGY—A Treatise on Diseases of Women, Comprising the Results of the Latest Investigations and Treatment in this Branch of Medical Science. By CHARLES H. BUSHONG, M. D. Second Edition. New York, E. B. Treat & Co.

The first edition of this work appeared in March, 1893. The first edition was a very popular one. This edition is better than the first. It has been to a great extent re-written and revised and much new and valuable matter added. The chapter on neoplasms in the special organs of women has been remodeled, and that on Malignant Disease of the Female Genitalia entirely rewritten. A new chapter on hygiene and exercise has been inserted. In this work is placed before the physician a clear common sense statement of the symptoms of the various diseases of the female sexual organs. It indicates in detail the methods of treatment that can be applied by him and also indicates in brief the methods requiring the aid of a specially trained consultant of larger experience. The work contains something over 400 pages, with a good index, and is complete and comprehensive. The illustrations are very good, having been made from photographs taken specially for it. It is a very fine book and indicates the work of a master from introduction to index.

LECTURES ON NERVOUS AND MENTAL DISEASES. By CHARLES SINCLAIR ELLIOTT, M. D. New York: A. L. Chatterton & Co.

This is a most excellent homeopathic work upon this important subject. It combines the anatomy, physiology, pathology and the homeopathic therapeutics. The student can turn and find what he desires stated in a brief and condensed form. The basis of this work is the lectures delivered before the Kansas City Homeopathic College for the past nine years. The diseases of the nervous system threaten to be the diseases of the future, as they are of the present day, in spite of every restraint that men can put upon themselves. In no department of medicine has greater advancements been made in recent years than in that relating to the diseases of the nervous system; in fact nervous diseases constitute a modern study. The first chapter is devoted to general Anatomy and Physiology of the Nervous System. The chapters are all well written and thoroughly up to date. The book contains nearly 900 pages, clearly printed and nicely bound. Throughout the work, not only has the homeopathic treatment been fully given in each disease considered, but also all other adjunct methods of treatment that will assist in the palliation or cure of the diseases which have been described.

ATLAS AND ABSTRACT OF THE DISEASES OF THE LARYNX, By DR. L. GREENWALD, of Munich, edited by Charless P. Grayson, M. D. Philadelphia: W. B. Saunders, 925 Walnut St., 1898.

The first section of this book treats of the methods of examination. The methods given are Inspection, Palpation and Auscultation. The next subject discussed is the Pathology and Treatment, then comes a treatise on Chronic Inflammation. Chapter III. considers Neoplasms; chapter IV. Disturbances of Motility; chapter V. Disturbances of Sensibility; VI. Disturbances of the Circulation; VII. Solutions of Continuity; VIII. Foreign Bodies; IX. Malformations. The work will be a great help to the beginner in the art of observing and interpreting. The illustrations are arranged solely according to external appearances, without regard to the notion of the disease. The illustrations are excellent. The work will serve a most useful purpose, both to the student and general practitioner. The book is well bound with good binding, and fine index.

TRANSACTIONS OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION, VOL. X. Tenth Session Held at St. Louis, Mo. Published by the Association, 1898.

These transactions are nicely bound, and make a most creditable volume of nearly 490 pages. Dr. W. E. B. Davis, of Birmingham, Ala., is Secretary. Dr. George Ben Johnston is President. These transactions contain a great many valuable and interesting papers with a very full and complete discussion.

TRANSACTIONS OF THE AMERICAN PEDIATRIC SOCIETY, Vol. IX, 1896. Edited by Floyd M. Crandall, M. D.

This volume contains 218 pages and is neatly printed and well bound. Dr. Fred A. Packard is Secretary of this Association. It is replete with excellent material that will prove of interest to all physicians. It contains twenty-five valuable and highly instructive papers. Each paper is fully discussed. These transactions reflect great credit upon the association.

LITERARY NOTES.

LIPPINCOTT'S MAGAZINE FOR JUNE, 1898.—The complete novel in the June issue of Lippincott's, "Mere folly," is of somewhat unusual length for the Magazine, and of a high order of merit. Its well-known author, Maria Louise Pool, has done nothing better, either in story-telling or character-drawing. The two heroines are strongly contrasted, and the hero's vacillations between them make most of the plot.

W. Bert Foster tells the tale of "The Man who hung on" to a dead Western town and its newspaper, and found his account therein.

Henry Holcomb Bennett's article, "In Time of Peace," is of special interest just now, for it describes the National Guard and the high degree of efficiency to which it has been raised of late.

"Klondike and Climatic Reflections," by Felix L. Oswald, is another timely paper. Walter Cotgrave writes of "Gastronomic Germany," Lawrence Irwell of Suicide in India," and George R. Frysinger of "Robins." Richard Malcolm Johnston expresses his dread of "Dogs and Railroad Conductors."

"The Terrors of Authorship" are set forth by Elmer E. Benton. A second article on "Charles Lamb and Robert Lloyd," containing more of Lamb's hitherto unpublished letters, is supplied by E. V. Lucas.

The poetry of the number is by Marion Manville Pope, Grace Duffield Goodwin, Laura H. Earle, and Carrie Blake Morgan.

The American Monthly Review of Reviews for June is a well-illustrated "war number." The magazine opens with the editor's review of the first month's campaigning in our contest with Spain. This is followed by the detailed account of the struggle in the "Record of Current Events" and "Cartoon Comments" on the war, chiefly from foreign journals. The contributed articles include a character sketch of Admiral Dewey by Winston Churchill, two articles on the Philippines, and one on "Spain and the Caroline Islands" from a missionary point of view. The department of "Leading Articles of the Month" also deals with many questions growing out of the war. Altogether there are more than eighty pictures of subjects related to the present crisis.

The Living Age has bought the right to use serially Neil Munro's striking story "John Splendid" which is now running in Blackwood's Magazine. It is begun in The Living Age for May 28, and will be published in weekly instalments until it is completed. It is Scotch—but not too Scotch; and as W. L. Alden has well said it marks a wide departure from the "kailyard school" of fiction.

SAMANTHA AT SARATOGA, IN A NEW DRESS.—One of the funniest of all the funny books is certainly "Samantha at Saratoga." Will Carleton pronounces it "delicious humor" and Bishop Newman says it is "bitterest satire, coated with the sweetest of exhilarating fun." Formerly published by subscription at the price of $2.50, and sold, it is said, by the hundred thousand, it has recently been issued in an exquisite little cloth-bound volume in the "Cambridge Classics" series by the celebrated cheap-book publishers, Hurst & Co., of New York, as a means of widely advertising that series, and is sold at the fabulously low price of 25 cents. It would seem strange if they should not sell a million of them. They are sold by booksellers, or the publishers direct.

A Probable Element in the Origin of Human Monstrosities.

It is with some hesitation that I attempt to write on the above subject. So far as known to me there is nothing in literature on this topic which, to my mind, offers a remedy of such promise, as the one I propose to suggest, to prevent the birth of such unfortunates among the human race. I shall only speak of one phase of this extensive subject, and shall draw deductions from a source only occupying a probable place in science, and hence such conclusions can at best be only probable occurrences.

It becomes necessary for me to resurrect an old, and, I think, a much neglected thought, and which to-day does not receive the endorsement it merits, viz.: that of maternal impressions. We are led to believe that deformities which are congenital in our race, are due to some of the many forms of arrested development. The trophic centers, if we may so term them, in fœtal life are, in some mysterious way, inhibited in their action and their supply of nutrition becomes perverted, eventuating either in distorted growth, else an arrest of the forces entirely, in a particular part of the body. Whether this occurs in the mesoblastic, epi- or hypoblastic layer, or in all three, may be quite indefinite, and does not become essentially important to ascertain, in the discussion of the subject, or at least that phase we purpose directing your attentien. Or whether still the cause is back of fœtal processes, and starts in the maternal structures, in which case, the phenomena of arrest or misdirected nutritional forces, only appear after birth in the fœtus, concerns us little. Hence, laying aside the mysteriousness of the operative cause and arriving at phenomena as we see them in victims of malformation: we see as a possible cause, impressions made upon the woman in pregnancy, produced by unusual sights acting upon the impressionable nervous system culminating in aborted or malformed products.

I well know that the emotional nature of a woman in such a condition, may have it aroused in the shape of what may aptly be styled a nervous storm, by causes purely unseen or imaginary, yet it is not this division of the subject we desire directing attention, but only those hideous sights of walking human monstrosities which pervade in the open every hamlet, town and city in our land, and which we argue may account for their own kind of perpetuation in succeeding generations. These unfortunate victims of thwarted nature, hence become a part of the environment of civilized motherhood, and from which in some inexplicable and occult (though none the less forceful manner) feed through the medium of maternal processes; species of the human race, yet unborn, which probably from this cause become counterfeits of men and women which the future should produce. The remedy suggested is to care for tenderly and fully, but out of sight of mothers, all who are to a great degree maimed, and those hideous departures from the ideal human form, which to see engenders our pity and sympathy, and which in itself renders them none the more comfortable nor happy while incurring the unnecessary peril, of producing their like, amongst those yet to be born.

In Kansas City, where I live, in the corner of streets and elsewhere, can be seen human beings cheated by nature or accident out of a part (and oftimes a very large part) of that which good breeding guarantees every member of the human family, viz.: a sound and fully developed body; while the mental qualities should be somewhat commensurate with those of the physical organization.

This, in the light of my philosophy, should not be tolerated, and we are allowing that which I regard as a species of false sympathy to get the better of judgment. They should be housed, clothed, and fed, but absolutely prohibited from public inspection. I trust this simply put thought may receive the impetus it probably merits, and that this paper may serve to initiate an investigation, aided by the high development of modern science along this line, that we may the sooner ascertain whether this field has hitherto been neglected.

I desire to say in closing, that it is well to be impressed with the idea, all the while, that man derives his nourishment, whether good or bad, to a degree, from every manner and form of his environment. Everything he hears, feels or sees, is attuned to him; that his nature is in touch with, such as an avenue of nutrition, and this, if correct, renders the central idea, I have attempted to put forth in this article, the more probable.

Chas. B. Hardin, M. D-
Kansas City, Mo., May, 1898.

Chloroform and Ether.

The Therapeutic Gazette draws the following conclusions from an able and practical paper recently contributed to the Boston Medical and Surgical Journal by Dr. Keefe:

1. Statistics are at present of little or no value in deciding as to the relative danger of chloroform and ether, because, as the author has shown in a previous paper, the deaths under both bear a lower ratio to the inhalations than the sudden deaths in those who had not taken an anesthetic bear to the population.

2. Ether is a safer anesthetic in proportion as it is weaker, bearing a relation to chloroform of about one to five. The danger of chloroform is not so much inherent to it *per se* as to its relative greater strength and the greater care and experience required in its administration. He states that he would trust almost any physician to give ether, but not one in twenty to administer chloroform; just as any child can handle a toy engine, but not every man can handle a steam locomotive.

3. The difficulties with both chloroform and ether in the presoporous stages are, in nearly all cases, due to respiratory spasm, and the consequent heightened arterial tension and venous congestion. This is very likely to be unduly prominent in the brain on account of recumbency, and the few muscular fibres in its vessels in comparison to the general circulatory system. For this reason it is neither so well able to resist the onset by contracting its arteries nor to empty itself.

4. In the post-stertorous stage, after long application, the death is most likely to be caused by anemia and cardiac paralysis.'

5. The best medicine for the first kind of interference is amyl nitrite, belladonna, and strychnine; and for the second, digitalis and strychnine, supplemented by electricity and all the other movements recommended by Dr. Hill.

6. Were the writer asked for the greatest advantages ether has over chloroform he would say: The anesthesia of ether is loud and lifelike, hence any accident or interference is noticeable on the instant; whereas chloroform produces so quiet a sleep that the patient seems on the border-land of the grave, and there is not so distinct a warning of accident until too late; consequently it requires a degree of vigilance and attention that few possess. Moreover, the administrator, if conscientious, feels that he assumes a greater responsibility than the operator.

7. Chloroform is a more satisfactory anesthetic for short operations, where the sopor need not be renewed or continued; for obstetrics, where the anesthesia need not be complete; and for patients with lung or kidney disease, and children.

8. Ether is pleasanter and safer (for the vast majority of physicians) to continue the anesthetic state after having been induced by chloroform.

9. He does not believe there is any well marked difference in the manner of death under ether or chloroform; the stage of the anesthesia has more to do with it than the agent.

The Treatment of Eclampsia.

At a recent meeting of the Baltimore Gynecological and Obstetrical Society Dr. Neale presented a paper with this title. He said:

The treatment is still unsettled; the pathologist, rather than the clinician, may guide us.

Regarding eclampsia as due to a peculiar toxemia of pregnancy, the present tendency in treatment is to interrupt the pregnancy by rapidly emptying the uterus.

His experience has been to rely upon therapeutic measures less, upon operative procedures more.

Treatment is considered under the two following heads:

1. Treatment of pre-eclamptic stage.
2. Treatment of eclamptic stage.

Pre-eclamptic.—Importance of thorough examination of urine, including quantitative estimation of urea, and recognition of prodromal symptoms of eclampsia—viz., symptoms of toxemia.

Milk diet is most important preventive treatment, aided by proper action of (1) skin, (2) bowels, and (3) kidneys.

1. Pilocarpine is dangerous; hot baths are safe and effective.

2. Saline cathartics, and occasionally calomel, are the best means of removing toxins by the bowels.

3. There is no better diuretic in this condition than water.

In the presence of symptoms threatening convulsions, venesection (regardless of pulse, etc.,) followed always by normal salt-solution transfusion, is the most positive prophylatic measure next to emptying the uterus.

This latter is perfectly justifiable *at any period* when the eclamptic prodromata progressively increase, and should not be delayed when the attack occurs.

Practically all cases do better after delivery (seven per cent maternal mortality.)

Rapid cervical dilatation (Harris,) rarely deep cervical incisions (Dúhrssen,) followed by delivery, is preferable to slower methods.

Aid further elimination of toxins postpartum by working on (1) skin, (2) bowels, and (3) kidneys as above.

Eclamptic.—Bleeding followed by saline transfusion.

Do not wait for full, bounding pulse to bleed, but bleed anyhow, for we wish to remove a poison.

Transfuse, because we wish to restore cardiac tone, dilute and dissipate toxins, and favor their elimination by (1) bowels, (2) skin, and (3) kidneys.

Veratrum viride is opposed to present pathology of eclampsia and should not substitute venesection; it is never necessary and may be positively dangerous.

The same is true of nitroglycerin.

Chloroform is powerful for rapid and temporary nerve sedation, but should be very sparingly used, or entirely discontinued when effects of chloral have been produced.

Chloral is best given by rectum, forty grains at a dose. It is preferable to morphine, which should be employed where prolonged sedation is required by recurrence of convulsions or their prodromata.

In the eclamptic stage deliver as soon as possible and aid elimination as above stated.

Exopthalmic Goitre.

Dr. F. W. Campbell, (Canada Medical Record.) The chief symptoms are increased action of the heart, the pulse rate varying from 120 to 200 per minute. The cardiac impulse is exaggerated, and occasionally a systolic murmur is heard at the base or apex of the heart. The carotid arteries throb, and a pulsation or thrill can be felt in the thyroid gland on placing the hand over it. Swelling of the thyroid may appear simultaneously with the increased cardiac action, or be delayed for some time. The next chief symptom is prominence of the eyeballs, which varies in degree. Other symptoms met with are irritability of temper, insomnia, headache, impairment of memory, unfitness for employment, voracious appetite, flatulence, constipation, amenorrhœa, leucorrhœa, and epistaxis. The prognosis is favourable. Medicinal treatment is very uncertain. When the patient is anæmic, a combination of the tincture of the perchloride of iron and tincture of digitalis appears to do good. In some cases strophanthus is better than digitalis, and appears to have a more sedative action on the heart. Atropia in doses of $\frac{1}{120}$ or $\frac{1}{200}$ of a grain has been recommended to slow the pulse. An ice bag to the cardiac region or the nape of the neck, with complete rest in bed, has in many cases given relief. Galvanism, placing the cathode at the back of the neck, and the anode along the course of the sympathetic or over the heart, is said to have cured some cases. To these remedies Degny, in the Journal des Practiciens of October 16th, 1897, adds nitroglycerine where there is considerable cardiac pain, and ten drops daily of tincture of veratrum viride increased progressively to twenty drops, to lessen the contractile energy of the heart and slow the circulation. Degny also recommends the administration of ergot in combination with the hydrobromate of quinine as a vascular sedative, and chloral and trional when insomnia is a troublesome symptom. Fortunately nature often comes to our aid, and relieves the patient after months of discomfort.

Pregnancy Complicated by Chorea.

Dr. Dakin, in the Practitioner for December, reports seven cases in which chorea was a complication in pregnancy. The following points may be drawn from the doctor's valuable contribution:

1. Chorea is more frequent in the first than in subsequent pregnancies.

2. Legitimate or illegitimacy is without influence upon its occurrence.

3. In the majority of cases there is a previous history of chorea or of acute rheumatism.

4. The majority of cases occur in women under twenty-five.

5. The onset of the disease is usually during the first six months, and the earlier the onset the more severe, apparently, are the symptoms.

6. In every case endocarditis (*post mortem*) or cardiac bruits were present.

7. In none of the cases was there any attempts at spontaneous abortion.

8. In six out of the seven cases mania occurred at some time or other, but in two the mania did not appear until after delivery.

9. In each case mania rapidly subsided after delivery, but the choreic movements were not so easily affected, for in only one case did much improvement follow. This is in startling contrast with what is observed in eclampsia. In five of the cases labour was induced; in one the patient left the hospital at her own request; and in the seventh case a month's treatment with arsenic and bromides cured the chorea entirely, and the patient was discharged.

10. Chloroform is useful in quieting the spasms and inducing sleep, and should always be emplowed during operative manipulations. Hyoscin was also found useful.

11. Of the seven cases two died, and each of these was characterized by hyperpyrexia, the temperature exceeding 106 degrees.

12. The prognosis depends upon the severity of the spasms, and especially upon the degree of severity attained during the first week after their onset; cases which remain mild for a week are likely to prove amenable to treatment.

Hygienic Treatment of Epilepsy.

Dr. Gelineau, (Treatment) treats of the climate, occupations, etc., which a patient suffering from this affection should attend to, in order to ward off epilepsy as much as possible. With regard to the air which should be breathed, it ought to be in the country, as there is less noise, life is less exciting, and the air is much purer than in the towns. He should not live at the seaside, as attacks often become more frequent there, but in a sedative climate, such as Pau. The most suitable occupation is that of a farmer, because the air is pure, and the patient can employ himself in attending to his crops, vegetables, greenhouses, and flowers. The occupation of a shepherd is equally useful, and next to these in value to health are those of a basket maker, chair mender, rope maker, gunsmith, engraver, grocer, haberdasher, draper and taylor, because none of these endanger life; while that of a glass maker and other employments which involve the use of fire, would do so. The patient must avoid crowds, popular assemblies, the theatre, and long sermons in a church, as these tend to excite the emotions and interfere with the tranquil existence which is so absolutely necessary. He should sleep on a bed raised only a little way from the floor, and the pillows should not be too soft for fear of suffocation during a fit. The clothing should be warm, and flannel worm next to the skin. Lastly, he should go to bed early. and at a regular hour every evening.

Stone in the Bladder, with Hypertrophy of the Prostate Gland.

Dr. Orville Horwitz (Therap. Gaz.) reports four cases of stone in the bladder, in which on account of hypertrophy of the prostate gland a positive diagnosis was impossible. Only after double castration was performed, which resulted in atrophy of the gland, the introduction of a stone-searcher became possible and the diagnosis was established. Basing himself on those cases the author makes the following conclusions:

1. In cases of hypertrophy of the prostate, where enlargement is so great that a stone-searcher cannot be passed, or if it can be inserted, a thorough exploration of the bladder cannot be made, a positive diagnosis of calculus is possible.

2. In such hypertrophies a double castration is an entirely justifiable operation, as a preliminary measure to cause shrinkage of the hypertrophied prostate, provided the patient has already lost his virile power and is otherwise a proper subject for the operation.

3. Where a calculus cannot be detected by the X-rays and the entrance to the bladder is so obstructed by the prostate that a stone-searcher cannot be properly utilized, the surgeon is not to be held blameworthy if he fails to make a positive diagnosis as to the existence or non-existence of a vesical calculus.

4. In all such cases where double castration is recommended, the patient should be told of the possibility of the existence of a vesical calculus, that can only be detected with certainty after the gland has become sufficiently atrophied to allow of the passage of the sound. Should a calculus be present it can be readily removed by a subsequent operation.

Serum Treatment of Diphtheria.

It has been argued that the use of antitoxin has an effect in producing an increase in the number of complications. Experience however shows that this increase is not to be attributed directly to the use of serum. Dr. C. E. Michael, in a recent issue of the Practitioner indicates some of the factors which may possibly have contributed to this result (Treatment):

1. If any method of treatment for diphtheria is more efficacious than another in tiding the patient over the acute stage of the disease, it is only to be expected that the comparative incidence of complications amongst cases so treated would rise; in most fatal attacks death occurs fairly early, nearly always on or before the eleventh day from the onset; and the longer the life is prolonged, the greater is the likelihood that some complications will arise.

2. It is possible that in certain years the average type of the disease may be more conducive to certain complications.

3. It is possible that those concerned in taking the notes have lately been more careful in recording the slighter manifestations of the various complications than in previous years, for certainly the introduction of the antitoxic treatment has led to a deepening of the interest attached to the clinical study of diphtheria.

Laryngeal Tuberculosis.

Dr. J. W. Gleitsman presented a paper with this title at the recent Moscow Medical Congress (Medical Record). The condition was one to be let alone because of the hopelessness of curing the patient. This was the attitude up to recent times. But now we feel justified in using energetic means for relief of the laryngeal condition even when we cannot cure the patient. The treatment he considers under three divisions, medicinal, local, and surgical.

The writer regards the creosotal and guaiacol carbonate as curative and beneficial in many cases, and still more benzosol.

Locally, atomization, inhalation and insufflation will always be valuable processes. Rosenberg employed injections of menthol in olive-oil; Botey uses a 1- to 2-per cent. solution of creosote and guaiacol in olive-oil, in the form of tracheal injections. Barton gave intratracheal injections of benzoinol, europhen, and menthol to ten patients, three of whom had pulmonary phthisis, with considerable improvement. Of all local remedies, the application of lactic acid or the injection of a 50-per cent. solution beneath the mucous membrane, as originated by Krause, in 1885, is the most universally praised. Dr. Ruault has had great success with sulphoricinate of phenol, as also has Heryng. Simanowsky and Spengler employ 5- to 20-per cent. solutions of parachlorophenol in glycerin for removing superficial nodules and ulcerations. The author can testify to its efficiency. Dr. Murray recommended enzymol as a valuable auxiliary to the curette and lactic acid.

The surgical treatment comprises incision, curettage, submucous injections, electrolysis, galvano-cautery, laryngotomy, tracheotomy, laryngectomy, and intubation.

Curettage is more favorably received within the last two years on the same ground as a tubercular joint is interferred with by the surgeon, notwithstanding the involvement of pulmonary tissue and the fact that possibly not all of the diseased tissue may be successfully removed by the process. Of this latter the author thinks the objection will fail in properly selected cases. Hajeck repeated this operation twelve times on one patient and effected a cure. Giving due credit to Heryng, the author considers curettage indicated:

1. In cases of primary tuberculosis without pulmonary complications.
2. In circumscribed ulcerations and infiltrations.
3. In hard infiltrations of arytenoid region of posterior wall, ventricular bands, and tuberculous tumors of the epiglottis.
4. An incipient stage of pulmonary disease with but little fever and hectic.
5. In advanced pulmonary disease with distressing dysphagia.

The contraindications are:

1. Advanced pulmonary disease and hectic.
2. Disseminated tuberculosis of the larynx.
3. Extensive infiltrations causing severe stenosis where tracheotomy is indicated.
4. In the timid, distrustful, with little nerve-power.

The author recommends Heryng's double curette and Gugenheim's "*emporte piece*,"

Dr. Chappell, of New York, is credited with success in the use of submucous injections of creosote in wintergreen and castor-oil, one drachm to the ounce.

Dr. Scheppergrill, of New Orleans, claims for cataphoresis with pure copper electrodes that:

1. There is no destruction of tissues.
2. There is no reaction, no hemorrhage.
3. It does not demand as high skill as curettage.
4. It is applicable in all cases of laryngeal tuberculosis.
5. It is not painful nor irritating.
6. It generally relieves ulceration, infiltration and dysphagia.

Pieniazek says laryngotomy ought to be made only in a relatively good condition of the lungs.

Lohoff supports the general opinion that tracheotomy is indicated in stenosis and dyspnea.

The author claims progress in the treatment in the last few years.

Some Nervous Reflexes of Nasal Origin Among Children.

M. Stachiewicz has studied the cause of certain disorders displayed in children by reason of irritation of the trigeminus. These irritations are shown principally by the inferior turbinate bodies and occasionally showing traces of other more variable complications, such as ophthalmic and cervical neuralgias, vertigo, insomnia, dyspnea, etc. (Medical Age, May 25, 1898).

M. Stachiewicz reports a number of very interesting cases. One case is that of a small boy, very ill, whose trouble had been diagnosed as "broncho-pneumonia" accompanied with edema of the lungs. Dyspnea was very severe, pulse rapid, and temperature high. The author, on examining the nose, found inflamed turbinates, and decided to paint the mucous membrane with a ten per cent. solution of cocaine. In a few hours the trouble had disappeared.

In two other cases in children troubled with chronic dyspnea, one had rhinitis, up to this time unperceived; the other had a hard foreign body in the inferior turbinate. Both were cured by local treatment.

The fourth case treated was a girl of eighteen years suffering from headache, vertigo, and insomnia. On examination of the nose, mucous polypi were found. In the last case, a little girl, who for five years had had incontinence of urine, rebellious to all treatment, M. Stachiewicz found the turbinate very edematous. The incontinence disappeared after several treatments by cocainization.

The author believes that for the determination of similar troubles no pathological modification is necessary, a simple excitation being sufficient; and in conclusion dwells upon the necessity of always examining the nose, particularly among children.

Immunity from the Clinical Standpoint.

Dr. W. Gillman Thompson (Medical Record,) in a paper on "Immunity; Recent Theories Viewed from the Clinical Standpoint," says:

The two dominant views of the present day as to the nature and cause of immunity are; (1) The influence of the phagocytes, either as devourers of the germs or producers of substances which destroy germs or their products; (2) the influence of antitoxins, either as chemical antagonists acting by neutralization of toxins, or as physiological antagonists, acting by stimulating the cells of the body to increased resistence. After an analysis of the various theories, the author reaches the following conclusions:

1. The phagocytic action of the leucocytes in combating infection is of but little importance, and is mainly concerned in the removal of waste products rather than the devouring of live bacteria.

2. The leucocytes probably secrete substances which are both inimical to living bacteria and antagonistic to their toxins. The antagonism may be through digestion of the toxins and through counteracting the irritant effect of the toxins upon the general tissues of the body.

3. The antitoxins of the serum, whether artificially injected or developed within the body, do not act by chemical neutralization of the toxins, but through stimulation to greater resistance of either the leucocytes or the tissues, or both.

4. The blood itself, neither through its leucocytes nor through its serum, is capable of producing the phenomena of permanent immunity. To a limited extent only can it be relied upon for the prohibition of toxic symytoms.

5. It remains for the tissues to offer the final combat against the toxins and to develop a more or less permanent resistance to them, which is transmitted to successive cell generation as more or less permanent immunity. To this exercise of the inherent property of living protoplasm to resent irritation of any sort.

It is probable that natural immunity does not differ in kind from acquired immunity, which has been perpetuated for an unusually long period through succeeding generations.

Carbolic Acid in Typhoid Fever.

Dr. Gerald Williams makes the following report of a case in which an excessive dose of carbolic acid apparently cured a case of typhoid: (Lancet.)

Last autumn I attended a case of typhoid fever—a typical case with rash, hemorrhage and diarrhœa. The patient recovered in twenty-seven days. Ten days after the temperature had been normal both morning and evening he relapsed. His temperature at the end of the first week was 106 deg. F. in the evening for two days. He had two hemorrhages and distressing diarrhœa. On the fourteenth day of the relapse I saw him at 9 P. M., and as the diarrhœa was excessive I prescribed for him accordingly. The temperature was then 104.5 deg.; the pulse was 90. At midnight his brother, who was nursing him, came for me in a great hurry. He told me that he had given him two tablespoonfuls of pure carbolic acid in mistake for the diarrhœa mixture. I hurried as quickly as possible to his house. Fifteen minutes must have elapsed from the time of taking the poison to my arrival. I took a quart of saccharate of lime and my bag with a few drugs. When I arrived the patient was trying to vomit by putting his fist down his throat, but as yet had not succeeded; before I arrived he had "drunk about a quart of milk." He was very much frightened, his mouth was terribly burnt, his lips were perfectly white, and he complained of great pain in the stomach; he was not at all collapsed. I made him drink a quart of saccharate of lime and administered one-tenth of a grain of apomorphine hypodermically. He vomited in about one minute. I then gave him salad oil and sulphate of soda. He vomited several times more, the vomited matter on the last occasion being almost free from the smell of carbolic acid. He then fell back in bed completely collapsed. The pulse was hard to find and respiration was labored. I injected brandy and æther sulphureous hypodermically. He was quickly recovered; in two hours from the time I arrived I left him. I saw him at 8 A. M. next morning, and was very much surprised to find him looking and feeling very much better than before he took the acid. He only complained of his throat and slight pain in his stomach. His temperature was normal. The pulse was 96. He never had any return of fever, and in a week was out of bed. When his mouth healed he had nothing to complain of at all. In my mind this is a clear case of cure by carbolic acid, but I should not care to try quite such a big dose.

Spontaneous Rupture of the Uterus.

The etiology of spontaneous rupture of the uterus is not as yet wholly clear, although numerous observers have busied themselves with investigating its cause. The theory of Bandl, who ascribes it to mechanical forces, is unquestionably probable, but in looking through the literature one meets numerous cases in which a diseased condition of the uterine walls appears to have predisposed to, if it was not the sole cause for the rupture. Poroschin enriches the literature by a new case occurring in the private clinic of Slavianski, of St. Petersburg, and which apparently supports both theories. (American Journal of Obstetrics.) A IIpara, 45 years old, entered the clinic stating that her previous confinements had all been normal and were completed without medical aid. She was at the end of pregnancy. Fetal-heart sounds could not be heard, and upon questioning she admitted that two days before she had fallen upon her back and since then the child's movements had ceased. The fall was unaccompanied by pain and followed by no bleeding. The head was movable above the brim; the os admitted two fingers; membranes not ruptured. Slight labor pains were present, which a few hours later became stronger, but were never excessively severe. Suddenly, during the height of a pain, the patient exclaimed and complained of severe abdominal pain. Immediately after this the pulse became rapid and feebie, and the woman looked bad. The contours of the abdomen underwent a change, its circumference increased, and the uterus became painful and distended. The os being fully dilated, the tense membranes were ruptured, and a few minutes later a large dead chlld was expressed, the delivery of the child being followed by rather severe hemorrhage. The placenta and large masses of coagulated blood were removed by Crede's method. The uterus remained in an atonic condition, but the usual remedies sufficed to stop the bleeding. A few hours post-partum the woman expired with symptoms of general anemia and heart failure. A post-mortem showed the uterine muscularis to be pale and anemic, and its structure of an abnormally hard and firm consistence. Upon its posterior wall, in the location of the placenta, an irregular tear was noticed extending through the mucous membrane and muscular layers, but not including the peritoneum. A microscopical examination of the uterus showed the absence of degenerative processes, but the elastic structures seemed to be deficient. Poroschin believes that the deficiency of the latter was largely responsible for the accident. The importance of the fall must also not be overlooked, the uterus being forced against the vertebral column, causing a sudden strain upon its structures and a tearing of the internal layers; at the same time a hemorrhage took place which, owing to the absence of large blood vessels in the region of the tear, was trifling, but it sufficed to detach the placenta in part and cause the death of the fetus. With the increasing severity of the pains the tear extended, the hemorrhage became stronger, and finally the whole placenta became detached, resulting in the woman's death from internal hemorrhage.

Comparative Studies of Bovine Tubercle Bacilli and of Human.

Dr. Smith (Association of American Physicians) gave a *resume* of studies upon fever cultures of tubercle bacilli from human sputum and of five cultures from cattle, reported his experiments in full and drew the following conclusions:

1. The sputum cultures, with one exception, ressembled one another closely in morphological, biological and pathogenic characters. The same is true of the bovine cultures, the differences between these two groups being sufficiently well marked to justify the establishment of two varieties. The coati cultures resemble the human, the cat and the swine culture the bovine variety, and the horse culture stood between the two in pathogenic power.

2. The differences in the morphological characters of the bovine and the sputum variety are not sufficiently constant to warrant their use in diagnosis.

3. The differences between bovine and sputum bacilli will probably enable us to determine more definitely the agency of cow's milk in tuberculosis of infancy and childhood.

4. Sputum bacilli are presumably not capable of infecting cattle spontaneously.

Treatment of Senile Gangrene.

Jones, in the British Medical Journal, lays down the following rules for the treatment of senile gangrene. (1) When the gangrene is limited to one or two toes and the patient's condition is satisfactory, the surgeon should be content with the expectant plan of treatment, taking precautions to lesson or prevent the effects of local septic infection. (2) When, however, the gangrene has reached the metatarsus, he should be prepared to perform the high operation—that is, amputation above the knee, or, in rare and favorable cases, through the knee-joint itself. The local treatment in limited forms of gangrene should consist in thorough cleansing of the foot and leg, free dusting of the immediate vicinity of the dead part with iodoform, and the application over this powder of sublimate or salicylic wool. The use of artificial heat in the form of poultices and fomentations must be discarded as not only ineffectual, but positively mischievous. Pain may be relieved by the internal administration of opium and the local application of a powder composed of boric acid, sublimate of bismuth, and hydrochlorate of morphine. A case is reported of amputation through the lower third of the thigh for gangrene of the leg in a man aged fifty-seven, who a fortnight after the operation was pronounced to be out of danger and making a very good recovery.

A New Method of Draining the Peritoneal Cavity.

Any new device in the direction of drainage in operative procedure possessing merit certainly will be eagerly sought by the surgeon. It must be acknowledged that our present means of drainage in abdominal work has by no means reached perfection, and very much is desired in this direction. (Tri-State Medical Journal.)

We notice in the Bullet. Mem. de la Soc. de Chir. that a new method has been suggested by Delagenie. He holds that the means hitherto used for draining the abdomen after laparotomies are certainly defective.

Hence, he employs a perforated nickle tube, in which is inserted a skein of absorbent cotton, made to fit closely in the tube. In no case, the author states, should the metal tube be allowed to remain for a longer period than thirty-six hours. He further claims that excellent results have been attained in this manner.

Now, while this may be true, we doubt the propriety of introducing any hard substance, such as metal or glass, in abdominal operations. Certain it is that experience has shown that their sheer rigidity, no matter how aseptic they may be rendered, more than counteracts their good effects in drainage.

We believe that experience has shown that their rigid, irritating character is a positive menace to good results. Yes, we believe that in laparotomies they are dangerous.

The peritoneum is a membrane of marked peculiarities, trivial causes begetting bad results when least expected, and yet means of absolute and definite strength make it respond with vigor toward a healing process.

It has been within the writer's experience to have used repeatedly in pus cavities arising from abscesses in various parts of the abdominal cavity a mixture composed of equal parts of camphor and carbolic acid. Thus it is a surprising thing to see, when these elements are taken singly, their effects. Here is an acid which when applied separately readily corrodes but when mixed with camphor it is robbed of its corroding effect and rendered thoroughly germicide.

In the treatment of pus areas arising in cases of appendicitis, the wiping out of a pus cavity with this camphorated carbolic mixture has invariably returned good results.

The Third Pan-American Medical Congress.

The committee on organization of the third Pan-American Medical Congress, which is to be held in Caraccas, Venezuela, Christmas week, 1899, has been appointed, as follows: President, Dr. Jose Manuel de los Rios; First Vice-President, Dr. Nicanor Guardia; Second Vice-President, Dr. Jose I. Cardozo; Third Vice-President, Dr. Alfredo Machado; Treasurer, Dr. Luis Ezpelosin; Recording Secretary, Dr. Luis Razetti; Corresponding Secretary, Dr. Francisco A. Rizquez; and Drs. B. Mosquera, P. Acosta Ortiz, H. Rivero Saldivia, E. Ochoa, M. A. Seco, S. A. Dominci, E. Rodriguez, and M. Herrera.

As a knowledge of the Spanish language is valuable, in fact almost indispensable, to those who expect to attend the Pan-American Congress, we suggest that now is the proper time to begin the study of this language. To one who has studied Latin, or French, or Italian, the Spanish is easily acquired. It is a beautiful language, void of silent letters and pleasing to the ear. Whatever we may think of the Spaniards, there is no question about the utility of the Spanish language.

Heart Complications in Diphtheria.

Dr Cleon M. Hibbard has published (Boston Med. and Surg. Journal,) the results of a systematic study of the heart complications in a large number of cases of diphtheria treated in that hospital. The results of the post-mortem examinations in the seventy-two fatal cases which occurred are given in the report, and these results are largely drawn upon in formulating the following conclusions reached by the author:

1. A rapid pulse-rate in diphtheria is to be dreaded. Death usually results when it exceeds 150.

2. A slow pulse—60 in young children—is a sign often of serious heart trouble.

3. Irregularities in the pulse occurs in about ten per cent. of the diphtheria cases, and are generally significant of cardiac complications.

4. A systolic murmur at the apex is heard in about one case in ten, and its prognostic value depends upon the nature of the cause.

5. A bruit de galop in diphtheria is a most fatal sign.

6. After four weeks, with no heart symptoms in diphtheria, there is little probability of subsequent cardiac trouble in the convalescence.

7. All diphtheria patients who have tachycardia, bradycardia, irregular or weak pulse, a systolic murmur at the apex, vomiting or any paralysis—especially palatal—should be kept quiet in bed.

8. The most important element in the treatment consists in absolute rest in bed.

9. The vagus nerve in the fatal cases always had some evidence of degenerative changes. The weight of the heart was increased.

10. The cause ofdeath is usually from cardiac thrombi, dilatation or paralysis, produced most probably by the toxin of the diphtheria bacillus.

Pregnancy and Ovarian Tumors.

Dr. Swan (Bull. of Johns Hopkins Hosp.,) concludes as follows:

1. Solid neoplasms of the ovary complicating pregnancy are exceedingly rare.

2. The diagnosis may be difficult. In certain cases it may be aided by rectro-abdominial palpation under narcosis, using Kelly's method to gently produee artifical descensus of the uterus. The physical examination with signs of pregnancy, and those which belong more particularly to solid ovarian growths, generally enable us to make a probable diagnosis and one sufficient to warrant an exploratory section.

3. The prognosis in cases of solid growths of the ovary complicating pregnancy is much worse, both for the mother and the child, than in those of cystic neoplasms of these organs. Abdominial sections and extirpations of solid tumors during the early months of pregnancy produce equally good results, so far as the fetus is concerned, as in cases of cysts. The result to the mother depends on the malignant or benignant nature of the growth.

4. In extirpation during the second and fourth months of gestation, the maternal mortality is but 5 per cent., due to hemorrhage, shock, sepsis, cte., where as the fetal mortality due to abortion is only 20 to 22 per cent., as compared with 40 per cent. for the former, and 80 per cent. for the later, when those cases are left to unaided nature.

5. The compulsory operation (during the latter of gestation, during labor, or the puerperium) will rarely be required.

Normal Salt-Solution---The Various Methods and Indications for Its Employment.

Dr. P. Findley concludes an article on the above subject with the following summary (Med. Stand.):

1. When normal salt-solution is indicated, enteroclysis is the method of choice, providing there is time to await its effect.

2. The body-temperature, vascular tension, renal, cutaneous, and intestinal secretions, are influenced in direct ratio to the temperature of the injected fluid.

3. Injected solutions of high temperature, however, may lower the body-heat by promoting the excretions.

4. A solution of 60 deg. to 70 deg. F. given within the colon, will first stimulate and later depress the blood-tension and the secretions of the skin and kidneys. It is therefore to be used with caution, particularly in renal insufficiency.

5. In the subcutaneous method we have all that is required, when immediate effect is desired, except when abdominal section may indicate intraperitoneal injections; where the withdrawal of a quantity of blood has made it possible to give intravenous injection with the least possible loss of time; and where the serous cavities have been relieved of a quantity of fluid which may be replaced by normal salt-solution.

6. As a rule, no time is gained by the employment of the intravenous method, which should only be used when preceded by venesection for the withdrawal of a quantity of blood.

7. In intravenous injections it is possible to cause death from too great dilution of the

blood, an accident quite impossible in hypodermoclysis or enteroclysis.

8. Normal salt-solution is indispensable in the treatment of alarming hemorrhage, and is of great value in the treatment of the various toxemias, and in renal insufficency.

9. After the removal of a large quantity of fluid from the pleural cavity, the salt-solution may be injected into the cavity as a substitute for the effusion, and will thereby lessen shock and relieve septic infections.

10. In cholera and cholera infantum, normal salt-solution is invaluable as a substitute for the lost serum.

11. Venesection with the withdrawal of a quantity of toxic blood is indicated in toxemias, where the patient is plethoric, and should be followed by intravenous injections of an equal or greater amount of normal salt-solution.

12. In hemorrhage normal salt-solution maintains the circulation by adding to the volume of the circulating fluid which would otherwise stagnate in the veins, because there is not sufficient volume for the heart to propel.

13. In toxemias normal salt-solution dilutes the toxins of the blood and favors their elimination by stimulating the excretory organs.

Anesthetics.

Waller (British Medical Journal) contributes a paper in which his opinion is altogether adverse to chloroform and he believes chloroform is seven times as powerful as ether, and therefore more dangerous. He is greatly astonished that in the face of the clinical experience of the past fifty years chloroform should still be frequently employed in minor surgery, though he is well aware of the superior convenience of chloroform over ether, and that there are cases and circumstances rendering its use justifiably preferable to that of ether. But he believes that the proportion of such cases is very small in comparison with the actual number of cases in which it is habitually employed.

With regard to ether, Waller thinks an exaggerated estimate has been given of the inconvenience of administration, of the physiological counter-indications, and of the pathological after-effects.

With reference to the admittedly large number of deaths by chloroform, there seems to be no escape from the two horns of a dilemma. Such deaths are the result (*a*) of an agent dangerous under all circumstances, or (*b*) of an agent dangerous only when unskilfully administered.

(*a*) If chloroform is dangerous under all circumstances, it may not be employed in minor surgery. Death in this class of cases is therefore unjustifiable, and should be considered as a criminal offense.

(*b*) If chloroform is dangerous only when unskilfully administered, then again death by chloroform is unjustifiable, and ought to be considered as a criminal offense.

There can be no escape from one or other of these two alternatives. There have been deaths due to carelessness or to unskilled administration; there have also been deaths in skilled and careful hands. But unless we are to admit that chloroform is a "safe" anesthetic, and any death the result of carelessness or ignorance, we must admit that chloroform, being a potent reagent, is, *ipso facto*, a "dangerous" reagent, to be used only on serious grounds, and not to be employed as a routine drug in all kinds of cases, simply on account of its superior convenience.

Statistics of Diphtheria.

Lossel, according to the British Medical Journal, says that the mortality from diphtheria has been much deminished during the last few years, and that opinions can thus differ only as to the cause of the reduced mortality. The statistics are greatly in favour of its being due to the serum treatment, but a longer time must elapse before the final proof is forthcoming. In the Berlin Charité the mortality from diphtheria is both absolutely and relatively smaller; it has fallen to half what it was in the previous period of four years. In a second table the author gives the mortality from the diphtheria in the Berlin hospitals, and also the total mortality from the same disease in Berlin. Here it is shown that this total mortality in 1896-7 has only just equalled the mortality which used to prevail in the hospitals in the most favourable years. In the beginning of the serum treatment the fact that larger numbers of diphtheria patients were sent to the hospital has been adduced to explain the lessened percentage mortality, but the mortality during the last two years has remained much the same as during the first two years of the serum treatment. The mortality stands at one-third what it was. The mortality in other German towns has also decreased. Thus their death-rate from diphtheria from 1886 to 1894 was 106 per 100,000, whereas during the last three years it has only been 44. In Paris the deart-rate has also fallen. The very favourable impression made udon physicians by the serum treatment is thus confirmed by statistics. The fall in the death-rate cannot be a matter of chance, or independent of the method of treatment.

The Management of Patients Before and After Laparotomy.

Wiggin. (Medical Record) concludes his paper on this subject as follows, calling attention to the points which he considers important :

1. The importance, whenever practicable, of prolonged preparatory treatment of patients about to undergo an abdominal operation.

2. The importance of the administration of cathartics in the early part of this period, followed by large enemas for the purpose of cleansing the intestinal tract.

3. The importance of keeping a record of the body temperature, respirations and pulse-rate for several days in advance of the operation, and of making a final examination of the urine.

4. The necessity in the female of arranging to have the operation performed a few days after the menstrual period, and the cleansing of the vagina, even when it is intended that the operation shall be by the abdominal route only.

5. The administration of a small quantity of peptonized food (one ounce) containing stimulants two hours before giving the anesthetic, for the purpose of lessening the tendency to nausea and vomiting after the recovery of consciousness.

6. The necessity of the anesthetic being given by an experienced physician, and in the smallest possible quantity.

7. The necessity of protecting the patient's body properly with clothing and blankets during the operation.

8. The advantage of stimulating the pulse before the heart has become much exhausted, and of using intravenous saline injections before the radial pulse has become extinct.

9. The leaving in the abdominal cavity after free irrigation of a quantity of hot saline solution, for the purpose of stimulating the patient, preventing (?) the formation of intestinal adhesions, and lessening the danger of septic infection of the peritoneum.

10. The necessity of making the patient comfortable by change of position during the first two days of convalescence, and by the use of the rectal tube.

11. The necessity for early administration of food in reasonable quantities and at proper intervals.

12. The necessity of withholding stimulating enemata after operations in which extensive and firm pelvic adhesions have been broken up.

13. The necessity for deliberation as to the wisdom of reopening the peritoneal cavity in a given case of supposed concealed hemorrhage.

14. The importance of washing out the stomach as soon as the diagnosis of intestinal paresis is made, and of the persistent use of saline cathartics till the bowels move.

15. The importance of not administering cathartics to those convalescing from abdominal operations, and who are pursuing a normal course, too early or in too large doses.

The Surgical Cure of Uterine Prolapse.

O. Morisani (American Journal of Obstetrics thus concludes an article upon this subject :

1. The surgical treatment of cases of prolapse is absolutely essential, medical measures being inadequate to their cure. 2. Prolapse of the vaginal walls may be remedied by a plastic operation. For cystocele the operation indicated is anterior colporrhaphy in connection with restoration of the perineum ; the Hegar-Schroder method should be given the preference. In posterior colpocele Hegar's process is indicated, but may be slightly modified to suit certain cases. 3. In cases of utero-vaginal prolapse we may adopt (*a*) infra- or supravaginal amputation of the cervix, when there is hypertrophic lengthening ; (*b*) Fabri's recto-vaginal fixation when the posterior vaginal wall is detached from the rectum and there is excessive downward displacement of the cul de sac of Douglas ; (*c*) Alexander's operation, or, better yet, abdominal hysteropexy, if there is relaxation of the suspensory ligaments ; (*d*) to obtain durable results with all of these operations a plastic operation of the vagina and perineum should be performed in conjunction with them. 4. Median colporrhaphy with a plastic operation of the perineum may be performed in women who have passed the menopause. Vaginal hysterectomy should be reserved for cases where the indications are beyond question. These indications are : (*a*) senile atrophy of the vaginal mucosa and the pelvic plane, or else excessive hypertrophy—in either of these conditions plastic operations are valueless ; (*b*) excessive relaxation of the ligament's of the uterus when methods adopted to fix the organ in place have been unsuccessful ; (*c*) atrophy of the uterus, which has fallen completely outside of the vulva, surrounded by an inverted, flaccid and relaxed mucosa, or else hypertrophy of the organ ; (*d*) complicating fibroma, carcinoma, or more or less grave disease of the appendages ; (*e*) non-reducibility of the prolapsus, either because of its hypertrophy or because of pelvic adhesions.

Colour Tests for Diabetic Urlne.

Bremer says that both in diabetic urine and blood the colour reactions do not depend on the presence of sugar. (British Medical Journal.) In two clean and dry test tubes to c.cm. of normal and diabetic urine respectively are placed: 0.5 mg. or less of finely rubbed up gentian violet is then allowed to drop on the surface of the urine. In diabetic urine the superficial layers of varying depth are coloured blue or violet blue, and this colour does not disappear on shaking. In normal urine, even after shaking, no colour, or only the faintest trace, is developed. Merck's gentian violet B is the best. In low temperatures the re-reaction is not so marked, hence in winter it is well to place the test tube in a water bath. The addition of mineral acids or sugar to normal urine will not lead to the development of this colour reaction, which is really due to the presence of reducing substances in the diabetic urine. With urines of unusually low specific gravity under 1015 the reaction may approach that seen in diabetic urines. When, however, the reaction occurs in urine of high specific gravity the presence of diabetes is certain. If non-diabetic urine of moderate specific gravity gives a doubtful reaction due to the abnormal solubility of the violet-colouring matter, there is a disturbance of metabolism. The author adds that the reaction may throw some light on some of the many obscure points in the composition and chemistry of normal and diabetic urines.

The Properties Acquired by the Serum in the course of Enteric Fever.

Courmont draws the following conclusion from his experiments (British Medical Journal.) *a*. Properties acquired by the serum in the course of the disease. (1) The condition of the serum at first (sometimes as early as the fourth day of the disease) favours infection by the typhoid bacillus. Later and during convalescence this favouring action disappears. (2) It is succeeded by an immunising action, which increases gradually till cure is complete, but which exists before the symptoms of infection go. (3) Typhoid serum mixed with cultures of the typhoid bacillus and left in contact with them for some hours attenuates their virulence considerably. This attenuating propriety is independent of (1) and (2), since it is present during the whole course of the disease. Human non-typhoid serum has, as a rule, no such power. *b*. Relations between crumbling and the other properties acquired: (1) The above properties of typhoid serum can be detected in quantities of serum only just sufficent to cause clumping in the dose of culture injected into an animal. (2) There is no relation between the clumping power and the favouring infection or immunising properties; the former may coexist with the other two in the same serum, but is independent of them. (3) However, there is a fairly constant relation between the clumping and attenuating properties; in fact, the degree of attenuation of cultures seems to be exactly proportional to the modification of the bacilli produced by their clumping. Clumping must, therefore, be considered, as a protective reaction of the organism durging the period of infection. *c*. Clinical applications: The study of there acquired properties, especially of the formation of the clumping substance, is useful in serum prognosis. Thus the infection-favouring properties persisting sometimes may foretell a relapse, and an early established immunising property a quick recovery. The curve of the variations in the clumping power of the serum during the whole course of the fever reveals the way the organism reacts against infection, and constitutes one of the most important elements in prognosis.

A New Method for the Radical Cure of Inguinal Hernia: Intraperitoneal Transplacement of the Spermatic Cord and Typical Obliteration of the Internal Ring and Inguinal Canal.

Dr. George R. Fowler has contributed a new operation for the radical cure of inguinal hernia. (Annals of Surgery.) It consists of intraperitoneal displacement of the spermatic cord and the obliteration of the internal ring and inguinal canal. The steps of the operation are summarized by the writer as follows:

1. A curved skin incision which furnishes easy access to all the parts involved in inguinal hernia.
2. Splitting the anterior walls of the inguinal canal from the external to the internal ring.
3. Isolation of the cord and sac together from the surrounding parts, after which these are separated from each other and cleared well up to the internal ring.
4. Double ligature of the deep epigastric artery, with sufficent space between the ligatures to permit of incision.
5. Cutting away of the neck of the sac and incision of the posterior wall of the inguinal canal and Hesselbach's triangle.
6. The cord is transplaced into the peritoneal cavity from the site of the internal ring to a point below the level of the pubic bone.

7. Broad approximation and suturing the peritoneum and transversalis fascia in the cord for the space mentioned.

8. Obliteration of the internal ring and inguinal canal by accurate suturing, and strengthening of Hesselbach's triangle and the new point of emergence of the cord by outward displacement of the pubic attachment of the corresponding rectus muscle.

For What Period of Time Can Immunity from Diphtheria be Conferred by a Single Injection of Antitoxin? The Dosage.

F. G. Morril (Boston Medical and Surgical Journal, March 3, 1898) arrives at the following conclusions:

1. That immunity in any given case, of no matter how thorough exposure to diphtheria, may be conferred, for at least ten days, by the injection of a small dose (100 to 250 units) of serum, provided it is given twenty-four hours previous to actual infection.

2. That a larger dose (250 units for a child of two, up to 500 units for one of eight or over) will confer safety for three weeks—or to be a little more conservative, let us say twenty days—under similar conditions.

3. That no harm will result from the treatment in a vast majority of cases of sick children, probably in no case of a healthy child, provided the serum used is up to the present standard of purity.

In conclusion he says that any one who thinks that antitoxin will prevent the occurrence of a follicular tonsillitis or of a coryza in an individual who happens to have the Klebs-Löffler bacillus in his throat or nose will be disappointed; for neither of these conditions constitutes a diphtheria any more than the coexistence of the pneumococcus in the saliva, and a bronchitis constitutes a frank pneumonia. He adds that a physician who fails to promptly immunize the members of a family or close community in which diphtheria breaks out negelects to do his duty by those whose safety lies in his hands.

The Dietetic Uses of Olive Oil.

Olive Oil, says the Sanitary Record, is now used in many ways at one time never thought of. Besides being largely used medicinally, it enters into various processes of cooking much more extensively than it did. It is well known that good eggs fried in olive oil are much better flavored than when other kind of fat has been used. In massage, bashing, and for numerous other purposes, the use of this most natural valuable food is greatly extending. The value of good olive oil is beginning to be more generally recognized throughout the world than it formerly was. Eminent authorities have experimented with it, and found it a potent agent for many defects of the excretory ducts, especially the skin. Eczema has rapidly disappeared upon a discontinuance of starch foods and a substitution of a diet of fresh and dried fruits, milk, egg, and olive oil. Its beneficial effects when taken in conjunction with a fruit diet have frequently been marked upon the hair, nails, and scalp, and supplying to the subaceous glands the only substance which they secrete when in a healthy condition, and the absence of which is the cause of the debility of the hair, frequently ending in baldness. It has long been observed that those who live upon olive oil as a common article of food, and take it as such, are generally healthier and in better condition than those who do not. Its therapeutic and prophylactic properties are now well known to medical men. Oil is destructive to certain forms of micro-organic life, and it is reasonable to suppose that they can best be eradicated from the system by its internal use. The use of oil not only does this, but it restores to the worn out or diseased tissue just those elements of repair that its reconstruction demands.

Chronic Inversion of the Uterus, Following Abortion at Four Months.

A. W. W. Lea, in reporting a case of the above, states that it is an event of very infrequent occurrence. In fact but once has inversion of the uterus been met with in 190,000 labors at the Rotunda Hospital. Moreover, 250,000 births were recorded in Vienna without a case. In the vast majority of cases recorded, 87.5 per cent. arise after parturition, most of the remaining cases, nearly 12 per cent., being secondary to the growth of a fibroid tumor, or a sarcoma of the body of the uterus. The mechanism of the production of inversion has been much discussed, and it is now generally admitted that partial or complete uterine inertia is the essential condition. In cases arising from gestation the inversion usually commences at the placental site, and may be spontaneous, the result of a weakened condition of the uterine muscle in this area, or artificial, produced by pressure from above or traction on the cord before separation of the placenta. When once a small area of the uterine wall has become inverted this portion acts as a foreign body, causing efforts at expulsion, and in this way complete inversion may be brought about.

The progress of the inversion may even cease at the internal os. The author's case was that of a patient married eight and one-half years; three living children had been born to her, but during the fifteen months preceding her entrance into the hospital she had miscarried four times, in each case between the third and fourth month. Her labors had all been instrumental. There was no history of syphilis. On the fifth day following her last miscarriage, she flowed very freely, with sudden pain in the abdomen, attended with collapse. She took to her bed where she remained six weeks. Two days following, after getting up, she felt that something came down and endeavored to keep it back with a cloth. There was no pain at this time, though she suffered much discomfort from the presence of a "lump" in the vagina. Examination, per vaginam, detected a rounded, elastic tumor filling up the greater part of the vagina, the surface being smooth and soft. The border of the cervix could be plainly felt all around the tumor. Bimanual examination revealed absence of the uterus from its normal position, which was confirmed by recto-abdominal palpation. The mucous membrane of the uterus showed no tendency to become dry and skin-like, as in some recorded instances. Several days later, the unusual privilege was afforded of seeing the uterus menstruate, which lasted four days. Under ether, reduction was accomplished only by making free incisions into the cervix and longitudinal incisions over the uterine mucous membrane at the region of the internal os, in addition to continued pressure kept up on the neck of the swelling and over its surface, the cervix being firmly seized by volcella. The patient subsequently became pregnant and was delivered at term without trouble.

Toxæmia in Pregnancy.

At a recent meeting of the Edinburgh Obstetrical Society Dr. Kynoch read a paper on this subject. (British Medical Journal.)

By toxæmia in pregnancy was generally understood that condition which occurred as the result of the presence in excess of toxic material, and, so far as was known, the poison was of the nature of an alkaloid or alkaloids. The excretion of waste material was mainly effected through the kidneys; and this might account for the albuminuria of pregnancy rather than mechanical pressure or reflex spasm. Clifford Allbutt found evidence for the presence of a circulatory toxin in pregnancy from the fact that healthy urine contained toxic material. Bouchard found that such urine, when injected into animals, produced symptoms ending in coma. The nature of the poison was unknown. Bouchard found that it was not urea, inasmuch as, in order to bring about a fatal issue, more urea was necessary than the amount present in the urine injected; and the potash salts present were also insufficient to explain the results produced. Many obstetricians now believed that the theories already advanced to explain eclampsia did not cover all cases and therefore they accepted the toxæmic theory as a substitute. They considered that the convulsions arose from the action on the nerve centres of a poison which was the result of tissue metabolism elaborated partly by the mother and partly by the child. Chambrelent's experiments proving the increased toxicity of the blood in eclampsic conditions, and the diminished mortality as the result of treatment based on this theory, were in favor of the correctness of the theory. Bacteriology pointed to the same conclusion. Lindermann had reported a case of fatal vomiting where he found neuritis in several nerves, fatty degeneration of liver and kidneys in both mother and fœtus; the spleen was enlarged, differing from the atrophy which was found where death had been due to inanition. He therefore believed the cause of the vomiting to have been an auto-intoxication. Salivation in early pregnancy had also been regarded as due to an excess of a toxin present in normal urine. Toxins absorbed from the bowel might be rendered harmless by the protective influence of the liver, but if there was disease of the liver or an excess of toxins, then symptoms of poisoning were produced.

The Modern Aspect of Indicanuria.

Dr. Charles E. Simon in the American Journal of the Medical Sciences draws the following conclusions:

1. The gastric juice possesses antiseptic and germicidal properties.
2. These properties are referable to the presence of free hydrochloric acid.
3. A subnormal amount of free hydrochloric acid will call forth an increased degree of intestinal putrefaction.
4. The conjugate sulphates form an index of the degree of intestinal putrefaction.
5. The increased intestinal putrefaction in cases of subacidity and anacidity of the gastric juice is largely referable to an increased formation of indol.
6. The elimination of indican in the urine may be regarded as an index of the amount of free hydrochloric acid present.
7. A normal acidity of the gastric juice

is never associated with increased indicanuria.

8. Cases of ulcer of the stomach apparently form an exception to this rule, an increased indicanuria being usually associated with hyperchlorhydria.

9. In other cases of hyperchlorhydria a subnormal or normal amount of indican is eliminated.

10. Simple constipation is rarely accompanied by an increased elimination of indican.

11. Diarrhœa referable to a catarrhal condition of the colon, often following a previously existing coprostasis, as well as diseases of colon in general, is not associated with an increased indicanuria.

12. In the differential diagnosis between ileus and coprostasis, a small amount of indican excludes the former condition.

13. In cases of an achlorhydria with much lactic acid, the indican is not necessarily increased.

14. No indican, or but little indican, with delayed Günzburg potassium iodide reaction, indicates the absence of free hydrochloric acid, with much lactic acid.

The Value of Hydrastis in the Treatment of Uterine Hemorrhage.

The Therapeutic Gazette for May contains an editorial on this subject that is of unusual value. The author says:

Hydrastis has been employed by both regular and irregular practitioners, for many years as a remedy for catarrhal conditions of the stomach and intestines, and also for inflammatory conditions of a catarrhal character in the genito-urinary tract of the male rather than of the female. The question whether it exercises any considerable power over the genito-urinary apparatus other than by acting as a tonic to the gastro-intestinal mucous membrane, and thereby improving general nutrition, is one of considerable interest, and about which there seems to be a good deal of difference of opinion. As long ago as 1866 an abstract of a paper by Kugelmann appeared in one of the early numbers of the American Medical Digest in which he claimed that the use of hydrastis very materially checked the menstrual flow, and it has been suggested that it be employed not only in cases of excessive menstruation, but also in those instances of profound anemia where, in the opinion of some clinicians, moderation or almost complete arrest of the menstrual function is of value as a means of preventing the periodical drain on the system. A few years after Kugelmann's paper had appeared the late Dr. Jackson, of Chicago, reported that he had found this use of hydrastis distinctly valuable, and his evidence may be taken as supporting that of Schatz, of Rostock, who was one of the first to employ hydrastis as a uterine tonic. Dr. W. Reynolds Wilcox has also recorded his experience with the drug in arresting excessive menstruation, and it is worthy of note that Dr. Jacobson considered hydrastis superior to ergot for the purpose named. At most, however, it can not be expected that the hydrastis will do more than modify the menstrual flow; and Jackson admitted in his paper that by no means in his power, such as tamponing, the use of heat, the use of ergot, or the use of hydrastis, or of all three together, had he been able to produce artificial suppression of menstruation. That the drug does, however possess some influence upon menstrual flow and upon hemorrhages from the uterus seems pretty well proven at this time by the gradually accumulating reports that have been placed before us; and while it is by no means a specific, it is one to be considered when the physician comes face to face with a condition which these peculiarities of the remedy will meet.

Bathing of New-born Children.

The Editor of Pediatrics discusses this subject in the May edition of his Journal. He says:

Almost from times immemorial the bathing of infants has been looked upon as a more or less necessary function, and one conducive to their good health in every respect, though possibly in some cases the practice may be carried to excess. Therefore when it is stigmatized as harmful, and when it is proposed to abolish bathing in favor of merely washing, it seems an upsetting of methods firmly established and confirmed by long experience. However, in these days, one grows accustomed to have one's old time notions overturned, often, it must be confessed, with results that amply justify the change. Nevertheless, so far as the bathing of the new-born is concerned the evidence adduced in favor of its discontinuance is not sufficiently convincing to deter the majority of medical men from still recommending it as an excellent custom from a hygienic point of view.

Dr. Naumann, of Berlin, who has recently uttered a warning against bathing infants during the first few days after birth, according to the Berlin correspondent of the *Lancet*, does so on the following grounds: "that the cicatrization of the umbilicus is hindered by bathing and that infection may arise from the germs present in the water." His views are strongly opposed by Dr. Schræder, Halle, who states that he has examined a series of 150 newly born children of whom only half were bathed in the usual way, whilst the other half were only washed. The stump of the umbilical cord was dressed with salicylic powder and cotton wool; in the case of the infants who were bathed this dressing was changed after each bath, but in the case of the infants who were not bathed, the dressing was allowed to remain for several days. The temperature of the children was taken twice a day, the result being that of the 150 children twenty (14.7 per cent.) had a rise of temperature. In twelve cases the temperature rose only once above 38 deg. C. (100.4 F). Eight of the twenty-two had been bathed and fourteen had been only washed. There was only one instance in which an affection of the umbilical wound appeared to be the cause of the fever and this case occurred in an infant who had not been bathed. In nine instances the umbilical stump suppurated, but once only in a bathed child. It fell off, on an average, on the fifth day in the infants who had been bathed, but somewhat later in those who had not. As for the influence of bathing on the weight of the infant, Dr. Schræder states that on the tenth day after birth the average increase of weight shown by sixty-three of these infants was 140 grammes for thirty-two who had been bathed, and 152 grammes for thirty-one who had not been bathed. At the same time it was found that nineteen of these infants had the same weight as at birth; nine of them had been bathed and ten had been washed. It was therefore obvious that bathing had no prejudicial influence on metabolism.

Primary Tuberculosis of the Rectum.

Straus publishes an interesting article on this subject in which he reaches the following conclusions: (Mathews Med. Journal.)

Primary tuberculosis of the rectum is not so infrequent as some of the leading authorities have taught.

It is a surgical disease as much as is appendicitis.

It is not and cannot be diagnosed by the clinical symptoms given by the various writers on diseases of the rectum.

The only scientific and correct way of making a diagnosis is by the use of the microscope.

By thorough curettement or excision, or both together, with cautery, it is not only cured but remains cured much more often than the teaching of the authorities would have us believe.

Some of the apparently hopeless cases are cured by repeated operations.

All suspicious cases should be submitted for microscopical examination.

Local treatment is not equal to curing these cases; permanent results are to be had by a radical destruction of diseased tissue or the habitat of the tubercle bacilli.

These cases are and have been cured, and that sufficient time has elapsed for us to conclude that they will remain cured.

Early and repeated operations if need be are imperative, if these cases are to be permanently cured.

The Treatment of Gonorrhœa in Women.

Referring to the recent discussion in the Berlin Medical Society as to the treatment of gonorrhœa in women, and especially in prostitutes, Neisser publishes the following statements: (American Journal of Obstetrics.)

Not every affection of the uterus or adnexa, following or originally caused by gonococci continues, or should always be classed as, a gonorrhœal infection. Although appropriate treatment can destroy the source of infection, pathological changes may continue to exist. It has never been proven, and is certainly untrue, that every, or even most cases of gonorrhœa, lead to an infection of the uterus or adnexa. Neisser states that he can prove this statement by a number of cases carefully observed by himself and other competent gynecologists. His own experience leads to the conclusion that the subsequent involvement of the uterus and pelvic organs is rather rare, but he states that this is possibly due to early recognition and immediate and appropriate private treatment of the cases coming under his care. Neisser is not an advocate of expectant treatment, but advises a careful and thorough bactericidal therapy of both the urethra and cervical canal. Patients should only be discharged after a microscopical examination if the secretion shows absolutely the absence of gonococci. Neisser advises the use of ichthyol instead of silver salts, the former being less irritant while both prolonged and active in effect. The author admits the difficulties encountered in the treatment of gonorrhœa in woman. The urethral mucous membrane cannot be distended through fluids injected, as in man, owing to its numerous folds and the absence of a closing sphincter.

Thus prolonged injections, which constitute the most valuable and convenient method of treatment in man, are absolutuly impractical in woman. The treatment with urethral bougies, although far from being perfect is the best known method at the present time. It has the advantages of prolonged action and of bringing the diseased surfaces in close contact with the medicinal agent. Applications to the cervical canal are easy, but are accompanied by the danger of spreading the infection to the uterine cavity. Neisser, however, believes that the invasion of the uterus is not so much due to the treatment as to the late stages at which the patients apply and undergo appropriate treatment. And, furthermore, the results of expectant treatment are so deplorable that even the slight amelioration following upon active interference should be encouraged, as it may ultimately lead to more perfect methods and corresponding improvements in results.

Puerperal Eclampsia.

H. S. Trueman believes it is accepted by all that eclampsia is due to some form of urinary excrement retained in the blood, which poisons the centres in the spinal cord and brain. (American Journal of Obstetrics). He states that there are usually warning symptoms some little time before the attack; these are various nervous disturbances, such as irritability, apathy, difficulty of seeing, slight deafness, severe epigastric pain noted by some, acute headache. The pulse may be slow or rapid, but is usually of high tension. If the woman is in labor the pains are irregular. When the fit commences the muscles of face and neck are first affected, the eyelids wink rapidly, face twitches, the eyes roll, the head and mouth are drawn to one side; the limbs and trunk soon participate in the convulsions, causing a twitching and jerking over the entire body. The patient next goes into a condition of general muscular rigidity, the tongue protrudes, the saliva is frothy and sometimes bloody. The condition of rigidity is soon relaxed and a succession of jerks and shocks follows; this period generally lasts several minutes. The respiration and circulation are so greatly interfered with by the violence of the attack that thr veins become greatly swollen with dark blood. The rectum, bladder and stomach frequently empty themselves. If in laboe the child may be rapidly forced out. During the attack the patient is completely unconscious. As a preventive measure all meats or stimulating foods should be stopped and patient placed on a milk diet, given laxatives, hot baths, and hot air sweats. When a woman is in labor and convulsions occur, the labor should be terminated as rapidly as possible. Bleeding, to be of use, must be prompt, and from sixteen to twenty-four ounces should be quickly drawn. The administration of chloroform should have a prominent place because of its power to control convulsions. Nitroglycerine and veratrum viride may be used where bleeding cannot be. Chloral and one of the bromides combined in doses of from thirty to forty grains each should be given by rectum every two or three hours.

Suckling and the Typhoid Bacillus.

Talamon and Castaigne (British Medical Journal) observed two cases of typhoid fever in women suckling their infants. The first patient had been delivered three months when the fever set in. The milk and the blood exhibited clearly the agglutinative properties of Eberth's bacillus.

The blood of the suckling did not agglutinate. The second mother was taken ill with typhoid fever four months after delivery. The agglutinative power in the blood and milk was very strong. The infant had suffered for a month from severe gastro-intestinal disturbance. Then its blood was found to agglutinate and it was weaned. The agglutinative power diminished, and at length disappeared. The child was again put to the breast, and very soon its blood again agglutinated the bacillus of Eberth. Talamon and Castaigne believe that the intestinal irritation in the case of this infant was not an effect, but rather the cause, of the agglutinative principle being passed with unusual ease and rapidity into the circulation.

Gastro-Enteritis in Children.

A Seibert believes that the distribution *en masse* of pasteurized milk for nominal prices to the most ignorant mothers are well meant experiments, but overstep the line in direction opposite to that of the laboratories by the low price charged for the milk. (New York Medical Journal.)

A poor and ignorant mother who can daily receive prepared food for her offspring for the asking will never learn the "why" for milk cleansing; and thns, instead of arousing a diligent zeal for properly feeding her baby, such paternalism but fosters thoughtless indolence. The mothers of the tenement houses will never learn to pasteurize, while the most ignorant of them can readily be taught to sterilize milk in a pot as devised by Langermann. Wherever sterilization fails it is not the result of the long boiling, but the pathological condition of the child's digestive organs, which must be removed by the physician before any milk, boiled, sterilized, or pasteurized, can be properly digested. To dabble with the milk in such cases is dodging the issue. It is the child that needs treatment and not the sterilizing apparatus. To prevent gastro-enteric infection of the new-born is easily accomplished. The physician's finger should be cleansed before entering the child's mouth. Midwives, fennel tea, sugar nipples, cathartics, and filthy breast nipples can be discarded, and a modern confinement ought to be looked upon as successful not only after the mother's genital organs, but also the baby's eyes, navel, and alimentary canal have escaped pathological infection. The first principle in gastro-enteric infection is to remove all remnants of food, bacteria, and ptomaines from the stomach and intestines by means of irrigation. The second chief indication is the absolute prohibition of milk in any form as a food during the first three days of illness. Underfeeding of the child with water gruels, and strained soups should be the means of alimentation.

Relief of Paroxysm in Dysmenorrhœa.*

By W. R. Inge Dalton. M. D.

Among the dyscrasæ feminaæ nothing so often presents itself to the physician for amelioration as dysmenorrhœa.

It is one of those diseased pathologic conditions, where, aside from all technical, gynecological knowledge, an urgent, absolute demand is made for immediate alleviation of pain. The mere cessation of pain leads the patient to believe in the skill of the doctor more than a discourse upon the finest powers of discriminating diagnosis.

That Saturnine warrior, Napoleon, once said: "Give them grape shot–quell the mob—then talk!" The sufferer echoes, "Give me relief from agony and then descant all you want to concerning pathological conditions."

To expect a drug to cure a dysmenorrhœa due to obstruction of the menstrual flow, caused by a stenosis of the os is absurd, but to find a woman willing to be satisfied by a mere narration of causes alone, is equally so.

I have made it a rule, when called to a case of dysmenorrhœa to relieve the pain at once, then, at my leisure, I can study out the cause. For all practical purposes dysmenorrhœa can be divided into two heads—constitutional and local. Systemic causes arise from a depraved blood supply, or neurasthenia. Local ones from some abnormalities of the uterus, ovaries or fallopian tubes. It is extremely difficult sometimes to make a differential diagnosis between these two—indeed it taxes the utmost skill of the gynecologist.

It is not the purpose of this paper to discuss that subject. I only propose to devote a few lines to the medical—therapeutical side and to present a few cases to demonstrate the beneficial effect accruing from the use of some remedies upon this distressing complaint.

Case I. Miss H., Dec. 6, 1896; age 32; had suffered for ten years; weight 112 pounds; anemic, no appetite. Upon examination found anteflexion just above os, cervix thin and quite long, bent acutely, made forcible dilation and prescribed rest for two weeks in bed. Made good recovery, but caught cold in April, 1897, and presented herself again for treatment on April 19. Complained of insomnia, anorexia and constant "bearing down pains," lasting for forty-eight hours from beginning of menstruation. Showed me "what passed" that day, which proved it to be a case of membranous dysmenorrhœa, enough to excite suspicion. It was a large fragment, representing almost the whole interior of uterus, there being three openings in it, the external one and two others for Fallopian tubes. I prescribed chloral, extract hyosciamus and camphor, which seemed at the time to relieve the spasmodic attacks, but at next period all the above mentioned symptoms reappeared. Gave her cannabis indica with belladonna and asafœtida, to be taken three times daily, beginning three days before contemplated attack. Very little relief obtained. Tried all sorts of antispasmodics and alteratives for the following four or five periods, but with rather poor results, until I happened upon ammonol. "Eureka!" Ten grain dose was exhibited, followed in half au hour by another. Afforded complete relief in less than an hour. Since then she anticipates the dysmenorrhœa by taking a tablet, five grs., every night for two or three days before expecting the catamenial flow, and ten grs., two tablets, when flow is established, with complete cessation of former distress and agony.

In six other cases, congestive form, I have administered the remedy with entirely satisfactory results. The benefit accruing from its use appears to be derived from relieving the congestion of the uterus, stimulating that organ to renewed functional activity. Ammonol is not a secret remedy, as so many German products are. It is an ammoniated Phenyl-acetamide of the Amido-benzine series. It is quite different from other antipyretics by chemical combination of ammonia, which gives it a stimulating rather than a depressing action upon the heart and never leaves evidences of nervous phenomena.

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*Read before the New York County Medical Association at Stated Meeting, April 18, 1898.

Infection and Inflammation of the Reproductive Organs.

E. C. Dudley believes it is important to remember that the study of infection of an organ or group of organs is simply the study of their anatomy and physiology as modified by that infection. The inflammatory process has been defined as the reaction which living tissue exhibits to morbid irritation. This definition being correct, two conditions are essential—namely, the soil must be ready to react to the morbid irritation; the irritating influences must be present. The causes may be divided into predisposing and exciting. The systemic predisposing causes include whatever tends to render the system less resistant to morbid influences, as anemia, diabetes, rheumatism and the like. The local predisposing causes comprise whatever contributes to make the organ an accessible and receptive soil for infection, as traumatism, parturition, etc. The exciting causes comprise agents which have the power to produce and to maintain morbid irritation, as pathogenic microbes. Among the pathogenic microbes frequently found in the genitals are the staphylococci and streptococci of suppuration, bacillus of tuberculosis, gonococcus, etc.

The gonococcus of Neisser is one of the most frequent, destructive, and insidious factors in genito-urinary infection. Its chief power for harm lies in the lasting vitality of the germ long after apparent cure. The gonococcus may remain inactive in the mucous crypts, liable at any time, even while quiescent in the individual, to be communicated to another. Hence many an innocent and previously healthy woman, shortly after marriage to a man who supposed himself to have been cured of gonorrhœa years before, may, by contact with the attenuated virus, get a destructive gonorrhœal infection of the genito-urinary organs. A direct experiment from pure culture from a gleety discharge of two years' standing gave the following interesting results: 1. Attempted reinfection of the original urethra with this culture was always a failure. 2. The culture when transplanted to a coccus-free urethra produced typical acute gonorrhœa. 3. Infection from this back again to the original urethra gave a fresh gonorrhœa, which, after a typical acute course of five or six weeks, again subsided into a chronic gleet. Thus by passing the gonococci through another individual—that is, through a new culture ground—they become again virulent to the urethra which was invulnerable to them before. This explains the fact that an apparently healthy subject of chronic gonorrhœa may infect his hitherto uninfected wife and become again infected from her. The bacterial invasion and consequent infection may spread either by continuation of surface tissue or by the lymphatics or blood vessels. If infection is often transmitted from the genitals by way of the lymph vessels to the inguinal glands—the bubo is proof of this—it is evident that it may also travel by way of the lymph vessels a much shorter distance from the vagina or cervix to the parametria, and tubes. Infection by the veins is especially common in puerperal cases. It has often produced general septicemia and pyemia through very slight lesions. The inflammation is either acute or chronic. When the infection is of such virulence or of such character as to call forth the defensive process, which consists in an effort to circumscribe the disease by a limiting membrane of exudate and to produce blood stasis with more or less severe swelling, pain, heat, and redness, and finally to produce local destruction, the inflammation is called acute.

Pathology of Fever.

Dr. Moxter, an assistant of Professor Goldscheider, of Berlin, reports the results of a series of experiments on the effects of heat on the cells of the guinea-pig's brain and spinal cord. (American Medico-Surgical Bulletin.) Goldscheider had conducted some similar experiments a year previous, but had exposed the animals to the action of heat without exposing the brain directly. Moxter trephined the animals, and after their recovery exposed them in an incubator to temperatures ranging from 98.6 deg. to 106 deg. F.

He states that a twenty-four-hour exposure to a temperature between 104.9 deg. F. and 106.7 deg. F. results in serious changes in the ganglion-cells of the spinal cord and of the cortex; these changes were more marked in the cervical region. When the temperature ranged between 100.4 deg. and 106.5 deg. F., but intermittently, there were no marked changes, and by constant exposure for twenty-three hours to temperatures ranging between 102.4 deg. F. and 105 deg. F. no changes were induced. The kind of changes noted consisted in general chromatolysis similar in some respects to that observed following some of the acute poisons.

The Bicycle in Surgery.

Several modifications of the bicycle were described a short time ago at one of the Berlin Medical Societies, which have recently been introduced with the object of making the machine serviceable in the treatment of morbid conditions, more especially of the joints. (The Hospital, May 14th, 1898.) Cases of partial ankylosis in the hip, the knee, and more particularly in the ankle, not infrequently occur in which the frequent repetition of certain strictly limited movements is distinctly beneficial. The great point is that the movement be limited in range so as never to over-pass the point at which pain and spasm are produced, and it is here that the accurate adjustment which is possible in the mechanical arrangement of the cycle becomes of service, for it is easy, by arranging the gear and the length of stroke of the pedals to suit the power of the affected side, to obtain just the range of movement which is required for the particular case. For those who are skilled riders these adjustments can be made on the bicycle, but where there is any question about the capacity of the rider, or in those cases in which the patient has not been accustomed to the use of the machine, a well-arranged tricycle should be employed for the purpose. There are even cases in which at first the assistance of an attendant may be required, the movement of the joints being almost purely passive.

Foreign Bodies Left in the Abdomen After Operation.

The New York Pathological Society recently received a report of two cases in which substances left in the abdominal cavity after operation had perforated the intestines. (The Hospital, May 14, 1898.)

In one case a piece of gauze had been used to lightly pack the pelvis, after total extirpation of the uterus and adnexa for cancer of the uterus. The house surgeon had been instructed to remove the tampon per vaginam three days after the operation, but it was not noted that in doing this he had inserted a fresh piece.

Although the patient recovered perfectly from the operation she suffered from griping pain and constipation and, after about two months she passed a strip of gauze with a fæcal evacuation, after which the constipation and pain entirely disappeared.

The other case was one of abdominal hysterectomy for fibromyoma.

After the operation constant pain was complained of between the umbilicus and the epigastrium, where a swelling umbilicus developed which appeared to consist of adherent coils of intestine.

After many months she died soon after an operation, done with the hope of relieving an abdomino-intestinal fistula which had resulted. In this operation, after an unusually difficult separation of adhesions, a position of distended bowel presented itself, and on examination of a rent in the intestine near this place, a piece of discolored gauze was discovered, which, on being withdrawn, was found to be a large gauze serviette, which had evidently been left in the abdominal cavity at the time of the original operation, and had made its way into the bowel.

It would seem that the danger of leaving things in the abdomen, one which has been recognised from the early days of ovariotomy, is even more difficult to guard against now. Great as is the convenience and utility of pressure forceps, there is no doubt that they are all too apt to be lost sight of unless a very careful count is made, and the use of the temporary tampon is also by no means free from the same danger unless care is taken that it is in one piece, and that a strip is left protruding for some distance from the cavity. It was a simple affair to count sponges, but with tampon and gauze compresses error easily creeps in.

Viskolein in Typhoid Fever.

Dr. George H. Rice, of Sandoval, Ill., in a paper read before the Illinois State Medical Society, remarks:

The following case will give you practical information as to my *modus operandi:* Was called to a case of typhoid fever; Nellie H., aged 6 years, had been sick for several days before I was called. I found her at 2 p. m. with a temperature of 102 F.; pulse 130; hot, dry skin; tongue dry, parched, fissured, and with a brownish fur. As she was restless I ordered a sponge bath, gave one teaspoonful of Phosoda every four hours, also Viskolein—five minims of the liquid added to five minims of boiled water, used hypodermically, and gave five grains of the powder every four hours. Next morning at 9 o'clock I found that she had had a splendid night's rest; the temperature 99 deg. F.; pulse 100, with a feeling of great comfort and all symptoms decidedly better. I ordered the tongue to be painted with carbolized glycerin every hour or two, and had the five-grain powders continued. I was called at 6 p. m. the same day and found her with pulse of 100, temperature of 100 deg. F., tongue looking moist, and a decided improvement; bowels moving nicely twice a day. I gave her another hypodermic injection of the liquid, ten minims added to ten minims of boiled water and increased my powders to ten grains every four hours. I saw the case no more after that. The next morning I was told Nellie had a good night's sleep and was all right. I had the powders continued for twenty-four hours longer, however, after which I prescribed a tonic of hypophosphites and strychnine.

Viskolein is the active (stimulant) principle of kola with the carbolized (antiseptic) sulphoborate of zinc. Viskolein has been placed in the hands of The Maltbie Chemical Co., of Buffalo, N. Y., who have the sole right to manufacture it. They are gentlemen of high reputation as pharmacists, and have complete facilities for its manufacture in large quantities at a moderate cost, and have placed it before the profession in good shape. Therefore I recommend them and the trial of this remedy in your practice.

Letter from Dr. Brodhead.

Editor Charlotte Medical Journal:

My Dear Sir:—In reading over your Journal for April, I was much interested in the article "Indications for the use of the Forceps in the Second Stage of Labor," embodying the views of a number of gentlemen of the Buncombe County Medical Society. I am, after an experience of several thousand cases at the Sloane Maternity Hospital, of this city, fully in accord with the views expressed by Dr. Watson, and several other members of the society who have expressed themselves in favor of the early use of forceps in cases where "we are convinced that the natural efforts of the patient are failing, or unlikely to effect delivery except at a cost of long delay, with symptoms of protracted labor." In normal labor, i. e., normal in the sense that the membranes have remained intact until the first stage or the greater part of it has been completed, more time can be allowed with safety than in the cases of "dry" labor with which we must often come into contact. While no given time can be given as the limit beyond which no case should go without the use of forceps, still, we can say that, as a rule, a woman who has made but little if any advance for an hour and a half in the second stage, can be greatly helped by the use of careful traction. I believe that with the proper use of forceps, the danger of laceration will be no greater than to have allowed the case to become a protracted one, with more or less œdema oftentimes of the soft parts. That such œdema does occur in protracted cases there can can be no question, and laceration is much more common in those cases.

But again, if a forceps case has been so difficult that much laceration has taken place, is it not at least probable that natural delivery in that case would have been a most exhaustive process, if it had occurred at all, and how about the chances for the child, subjected to strong pressure for so long a time?

Then again, if we wait until there is some positive indication for the use of forceps, such as rapidly failing fœtal heart, or the presence of meconium, will it not, in the interest of the child, be necessary to deliver as speedily as possible? And if so, what is the result on the vagina and perineum? If we are to save the soft parts, we must interfere at such a time when it will be possible to do so, in the interests of both mother and child, and not sacrifice the child in our effort to preserve the soft parts. nor the soft parts to save the life of the child.

There are instances, such as the one I am about to mention, where the keenest judgment must be used. A large, robust woman, multipara, was admitted into the hospital in the latter part of the first stage. The presentation was vertex, head above the brim, position R. O. A. After the woman had done her best for over an hour and a half in the second stage, with little advance, it was thought best to give her assistance by the use of forceps. But the strongest traction failed to cause advance, and as the head was large, version was considered not advisable. The woman would not submit to symphyseotomy, and there was accordingly but one course of treatment to be pursued, namely, to wait a still longer time in the hope that nature would cause advance. Further efforts to deliver by forceps would have certainly resulted in the fracture of the child's skull. After a further wait then of several hours, during which time the vertex became engaged, the forceps were again tried, and this time with success, but now only with moderate difficulty. In this case, the long second stage was necessary to the successful termination of the labor. Therefore no rule can be laid down for all cases, but in general, there can be no doubt that early interference will give the best results in the end for both mother and child.

In dry labor, as I recently stated in a paper on the subject, read before the New York Academy of Medicine, a much shorter time should elapse in the second stage. As I stated there, I believe that in cases of dry labor, where little or no advance has been made for a half hour in the second stage, forceps should be used. In dry labor, the child, as far as pressure is concerned, is practically in the second stage, during the first, owing to the escape of liquor amnii. Therefore, if we allow these cases to wait as long in the second stage as we do cases of normal labor, our fœtal mortality will be much higher than it will be in using early interference. We never regret the early application of forceps in such cases, but how often we regret not having used them! There is a saying, "The forceps have saved more lives than any other instrument," and it is a true one. But they can be of even greater service than they are, if used often, and with the utmost care as regards the force used, the preservation of the soft parts, and in brief, with the proper amount of skill, without which of course results will not be as gratifying as we may wish. "Practice makes perfect," in the use of forceps as well as in other operative measures, and it is only by careful endeavor that we ever achieve success.

George L. Brodhead, M. D.
60 West 58th St., New York.

The First Nathan Lewis Hatfield Prize for Original Research in Medicine.

The College of Physicians of Philadelphia announces through its Committee that the sum of Five Hundred Dollars will be awarded to the author of the best essay in composition for the above prize.

Subject: "A Pathological and Clinical Study of the Thymus Gland and its Relations."

Essays must be submitted on or before January first, 1900.

Each essay must be typewritten, designated by a motto or device, and accompanied by a sealed envelope bearing the same motto or device and containing the name and address of the author. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers or their agents within one year.

The Committee reserve the right not to make an award if no essay submitted is considered worthy of the prize.

The treatment of the subject must, in accordance with the conditions of the Trust, embody original observations or researches or original deductions.

The competition shall be open to members of the medical profession and men of science in the United States.

The original of the successful essay shall become the property of the College of Physicians.

The Trustees shall have full control of the publication of the memorial essay. It shall be published in the Transactions of the College, and also when expedient as a separate issue.

Address J. C. Wilson, M. D.,
Chairman, College of Physicians,
219 South Thirteenth St., Philadelphia, Pa.

Life Expectancy of Syphilitics.

James Nevins Hyde (Medical Examiner) comes to the following conclusions:

1. Inherited syphilis is one of the most fatal of all disorders affecting the human race, and under the most favourable circumstances, irrespective of abortion and miscarriage, nearly 90 per cent. of children born living subsequently die.

2. Acquired infantile syphilis is very rare, is an exceedingly manageable disease, and is one in which probably a large proportion of all infants survive.

3. Between 80 and 90 per cent. of all adult patients affected with acquired syphilis escape its gummatous complications.

4. The percentage of patients affected with gummatous syphilis who perish is not known, but one may doubt if it exceeds two per cent. of the from 10 to 15 per cent. of those who suffer from gummatous complications.

5. The expectancy of life is probably not affected by coincidence of syphilis with other diseases, and the prospect that the patient with acquired syphilis will ever suffer from either struma, tuberculosis or cancer is exceedingly small.

6. The natural evolution of acquired syphilis in untreated cases in the adult is not in the direction of a lethal issue, but rather in the line of physical degeneration and grave complications due to involvement of the nervous system and of the bones without affecting organs essential to the continuance of life.

7. It is unfair to charge an extra risk for the insurance of syphilitic applicants otherwise in sound health and insurable, as any assumed unfavourable longevity prospects due to the fact of infection are more than counterbalanced by the extreme improbability of death from either tuberculosis or cancer.

8. If what precedes has a fair foundation in fact, it follows that the syphilitic applicant for life insurance should be examined with a view, not so much to his syphilitic history as to his condition with relation to all the other items making up a satisfactory risk. In other words, if he has a good family history, a sound constitution, excellent habits, and has reached, but not

passed, a satisfactory age, his expectancy of life is probably that of other individuals in similar conditions without added risk in consequence of his specfic disorder.

Letter from Dr. Brodnax.

Brodnax, La., May 31, 1898.

E. C. Register, M. D., Editor:

Dear Doctor:—The May Journal in hand and on page 583 Dr. R. L. Payne gives me a treat. Pity there were not more men (or rather all of the men in the profession) like him. Some doctors seem to think that God made a good many mistakes when he made man (or woman) and left them for these particular doctors to rectify. I've no doubt but the first woman in the world had some trouble about adherent placenta, and more or less since then. But they had sense enough not to finger at it, and nature did its perfect work all right. I've never owned a curette, nor have I ever had, as I believed, any use for one. Also I have had my share of partial and entire adherent placentas and abortions. In this section when "chopping out cotton time" comes on I have a crop of uterine troubles; uteritis, threatened miscarriages and abortions. This Spring, up to date, six uretritis, five threatened miscarriages, two abortions. All brought on by jerking the hoe. This (and sometimes three times this number) has been my "crop" for near thirty years. Now I don't finger about it much, If compelled to use them I see that they are well cleaned with "gold dust washing powder" or good soapsuds, and if called in the early part of the abortion I clean it out carefully with my fingers. If I am twenty-four hours after the same I let it alone. If no bad odor I still let it alone. If there is any foul smell I use warm soapsuds as a douche in vagina twice daily, and glycerine and tannin on cotton between times. If there is pain, begonin (concentrated tr.) with blk. haw (fld. ext.) There is seldom much, if any, hemorrhage. For this I use ergotine with belladonna.

My old friend of forty years ago told me, "Steel instruments have neither sight nor sense of touch—the fingers have both. Forty years has taught me that he was right. An educated finger is the best instrument in every respect. Any one who will take the trouble to study the matter, will find that each organ of the body has a separate brain that controls and protects it. That if let alone it will do this. That when injured, or placed in condition of change, the mucous surfaces are covered so as to protect the underlying tissues. If this covering is scraped off it exposes the said tissues to the action of any septic fluids that may be in the neighborhood.

Nature throws a scab over a sore to keep out filth; also clots to allow of formation of new tissues in wounds. Is there any sense in scraping these off? There is just as much in curetting the intra-uterine surfaces. I have always wanted to *see* what I was about, and if I could not get my eyes on it, I wanted something to come as near eyes as possible. I saw recently where, after curetting the uterus the woman had died within twenty-four hours, and a post-mortem examination showed that "the walls of the organ had been peeled up in several places and nearly cut entirely through in three places." And this by *skilled physicians* in a large hospital devoted to the care of women. Now if this is the work done by men whose entire time is devoted to the one subject, what is to be expected of a country doctor who has, at most, only a few cases a year?

Dr. Parrott, page 562, gives a good idea of how the country doctor has to do his work. "I've been there" for thirty years, and know he is right. The country doctor has, all the time, to take the chances as regards the help he has in any kind of work, and it is this same that teaches him to meddle as little as he possibly can with nature's mode of cure. Even with the best of assistants we read of a heap of bungling work, and perhaps a heap more is done that we do not read of. And simply because there is too much of this uterine meddlesome work done. This week I was called to see a woman who miscarried three days previous—"better come quick, doctor, she is having fits." I found the woman sweating, just out of a convulsion; learned that her bowels had not acted in six days; no bad smell to the flow. They didn't know whether the placenta had passed or not. I gave her

Five grains Calomel,
Three " Podophyllin,
Three " Aloes,

in capsules, ordered a cloth with coal oil and lard on abdomen, put a pledget of cotton wet with glycerine in vagina, stayed three hours. No more "fits." Bowels acted freely in two hours more. Gave begonin and viburna (fl'd. ext.) full doses. Saw case next morning. Woman all right. No vaginal examination.

I will add that twenty years ago I had an attack of hæmaturia following nine grains of quinine, which left me minus the sense of smell, so I have to depend on the noses of others as to bad odors. In all cases where there is no bad odor I let the vagina and uterus alone.

In three cases at full term I have known of parts of the placenta coming away three and five days after delivery, no bad odor. In two cases a perverted ova, male pregnancy, was retained for three days after the living child was passed off; no bad odor,

Moral:—Don't be too quick with your curette.

Yours Truly,
BEN. H. BRODNAX.

Indications for the Operative Treatment of Hepatic Tumours.

Terrier and Auvray, in considering the indications for operative interference in cases of tumor of the liver, point out that the opportunities afforded to the surgeon of intervening in such cases must be regarded as very rare. (British Medical Journal.)

In most cases of hepatic tumour the growth is secondary, and an index of generalisation of disease, starting in some organ more or less remote from the liver. This conclusion applies not only to malignant disease, such as carcinoma and sarcoma, but also to lymphadenoma, which ought to be considered, in a large majority of cases, as the local manifestation of a general malady needing an exclusively medical treatment. In most cases of primary cancer of the liver there is a local multiplicity—that is to say that, though the liver is the only organ affected, the growths are multiple and disseminated throughout the parenchyma of the gland. It is a necessary condition of success for the removal of any hepatic tumor that the growth be a single one, and also that it be situated at a part of the liver that is readily accessible. It would not be justifiable to attack any tumor deeply situated in either of the two large lobes of the liver. A condition favoring extirpation would be the presence of a pedicle. With regard to therapeutical indications, therefore, the seat of the disease in the liver, the absence or presence of a pedicle, and the existence of one or several growths, would be facts of the first importance. The removal of a tumor presenting the above-mentioned favorable conditions for operative interference would still be contra-indicated if such tumor had contracted close adhesions with the abdominal wall or the surrounding abdominal viscera. The authors conclude that a hepatic tumor, whether benign or malignant, may justifiably be removed if it be single, readily accessible, possessed of a pedicle, and free from adhesions to surrounding structures. The prospects of success are least favorable in cases of cancer, on account of the probability of relapse. In the liver, however, as in other organs, a centre of infection constituted by a malignant growth ought to be suppressed, and even in cases in which extirpation would be impossible, a palliative operation—cholecystostomy, for example—would be indicated, with the object of relieving functional disturbances, and so of prolonging the life of the patient.

Dangers of Chloroform Inhalation in the Presence of Illuminating Gas.

There have been, says the British Medical Journal, during the past few years various references to the changes which take place in chloroform when its vapour becomes burned in a room lighted by ordinary illuminating gas. The carbonil chloride, which under these circumstances becomes developed together with hydrochloric acid, produces dyspnœa, cough, and a feeling of suffocation alike in operator and patient. In damp weather, or when fog is present, these discomforts are accentuated, and it is just at such times that thorough ventillation becomes most difficult. However, temporary inconvenience appears not to be the only risk run in these cases. Dr. Mey, of Berne, has reported a death as resulting from the generation of these fumes. Dr. Mey found himself compelled to undertake a serious operation involving abdominal section, which occupied several hours. It had to be undertaken at night, and besides the operator and patient, a colleague of the surgeon, and two nurses were present in the room. Chloroform was administered, and coming in contact with the illuminating gas caused severe cough. Some hours after the operation Dr. Mey suffered from severe dyspnœa, which persisted for some time. The two nurses had similar seizures, and one of them eventually died from the effects upon her lungs. So serious a result is, we believe, a unique experience, and one which is likely to deter surgeons from an unguarded employment of chloroform when an open flame is the only means of illumination. The dangers referred to are minimised when the chloroform is given from an inhaler, such as Snow's, Clover's, or Junker's. With such an apparatus comparatively little chloroform vapour escapes into the air, and, therefore, little, if any, is burnt. A further precaution is a thorough ventilation; a large room with an open fireplace, and an efficient ingress for air will do much to obviate such untoward accidents. In hospitals there should be no possibility of either impure chloroform or of such crude arrangements being in use as unguarded gas lamps and chloroform given from a cloth or towel. With the simple means of testing and purifying chloroform which Professor Ramsay has given, no excuse can reasonably be made for jeopardising the lives alike of the patients and of the officiating staff, by using decomposed chloroform. It is to be hoped that to be forewarned will prove to be forearmed, and the occurrence of the death of the nursing sister at Berne will prevent the possibility of another fatality from a cause which seems distinctly preventable.

The Relation of Typhoid Mortality and Sewerage.

Wm. Osler, in the Maryland Medical Journal, says:

Typhoid fever is the sanitary index of a city. The mortality has everywhere declined with improvements in the sanitary conditions. Mr. J. W. Hill, an engineer, has recently tabulated the statistics of sixty-five cities with reference to the death rate from typhoid fever during the five years 1890–94 inclusive, and has grouped them into seven classes. I am sorry to say that Class I., comprising thirteen cities which have a death rate from typhoid fever under ten per one hundred thousand living, contains no American city. On the other hand, in Class VII., which comprises thirteen cities with a death rate from typhoid fever over sixty per one hundred thousand inhabitants, all are in this country, except Milan, Cairo, and Alexandria. The lesson of several of the European cities is worth reading. I can take time to refer only to Munich. The mortality per one hundred thousand of inhabitants in that city in 1857 was two hundred and ninety-one, and kept at a high rate until about 1865, when there was an improvement in the water supply, with a reduction of almost fifty per cent. in the number of cases of typhoid fever. After the introduction of the new system of drainage the mortality was still further reduced, and in 1887 it was only ten per one hundred thousand of the inhabitants.

Gynæcological Examination of Women Recently Confined.

Doleris lays great stress on the importance of a careful vaginal examination during the puerperium before patients are discharged from medical attendant's care. (British Medical Journal.) He believes that a large proportion of such patients carry away from their confinement the seeds of most of the pelvic troubles to which they are subject later on. Examination is specially necessary when the puerperium has been attended by any signs of infection, and should embrace (1) bimanual examination; (2) inspection of the vulva, vagnia, and cervix; (3) investigation of traumatic lesions of the cervix and of the conditions of the cervical mucosa: (4) culture examinations of the cervical secretions; (5) catheterisation of the urine canal, with dilatation if necessary. This will often show the prescence in the uterine canal of an abundant brownish or creamy liquid, in which in infectious cases pathogenic micro-organisms are constantly found. The infective condition, which is often complicated by displacements and subinvolution, should be vigorously treated before the patient leaves hospital or her home. Intrauterine irrigation and drainage should be combined with hypodermic injections of ergotine. In cervical lacerations with eversion, applications of creosote and glycerine (1 in 5) and insufflations of iodoform answer well. The author further recommends the daily injection of 100 to 200 c.cm. of artificial serum as a stimulant and tonic agent. For displacements he employs the Hodge pessary in the case of retroversion, and the use of tampons for several weeks in cases of prolapse and colpocele. Treatment on these lines is prophylactic, and will avert many subsequent troubles and more serious complications.

What We Find in Interval Appendicitis Specimens.

At a recent meeting of the New York County Medical Society, Dr. Robert T. Morris discussed this topic. (Medical Record.) He said that he had found concretions in the lumen of the appendix in about twelve per cent. of his cases. He had excluded from this estimate cases in which soft fæcal matter was rolled up into a ball, but not hard enough to cause ulceration of the mucosa. It was impossible to draw a sharp line between these two classes of concretions. In about five per cent. of his interval cases he had found tuberculosis. Some had thought this percentage rather high, but further examination had proved to them that they had overlooked the tuberculous nature of the lesion in a number of their cases. The appendix, he said, began to degenerate shortly after birth, and the involution process was going on during the life of the individual. As a result, at the age of fifty very few appendices contained much mucosa or submucosa. This degenerative change was not observed in other parts of the body, and was due to the appendix being a rudimentary structure. Like other rudimentary structures, the appendix was quite liable to be affected by tuberculosis. Not infrequently the tuberculous inflammation extended to the peritoneum, or metastasis occurred to the lungs, giving rise to pulmonary tuberculosis. Tuberculosis of the appendix was much more apt to be overlooked than infection with the steptococcus, the staphylococcus, or the colon bacillus, because of its mild character and insidious development. In other class of interval cases the appendicitis was associated with an encapsulated abscess.

Eye Strain,

Cheney (Boston Medical and Surgical Journal) has seen many cases with vertigo as a result of eye strain without other symptoms of asthenopia. It is frequent during middle life and is often regarded by the patient as a forerunner of apoplexy. Often the attack is of very mild character, causing the patient but momentary discomfort; while in other cases it lasts for a number of minutes and is of sufficent severity to necessitate sitting or lying down. A mild feeling of dizziness, frequently accompanied by slight nausea, lasting for hours, is another form of the trouble, but this is usually associated with prolonged use of the eyes, and its origin is correctly ascribed by the patient.

Drowsiness is not often recognized as a result of eye strain, but it is quite common and is often unassociated with other eye symptoms, Several cases of this class are reported.

An Early Symptom of Measles.

Dr. Slawyk, according to the British Medical Journal, calls attention to the eruption present in the mouth during the early days of measles, first described by Koplik. It consists of shining red spots, in the middle of which there are very minute bluish-white efflorescences. Slawyk says that Koplik's spots have not received the attention which they deserve, and that they represent an absolutely trustworthy and early indication of the disease, During last winter an epidemic of measles broke out in some of the clinics of the Berlin Charite. These cases, along with those of Heubner's clinic, numbered 52 cases, and in 45 of these Koplik's spots were observed. In 2 of the remaining cases the patients were too ill to permit of a satisfactory examination of the mouth. The spots appeared on the mucous membrane of the cheek and sometimes of the lips. They are mostly few in number. A bright light is necessary, as they are not visible in a yellow light. They practically never run together. They are distinguished from thrush by their colour and their rounded contour. They may be picked off with the forceps without pain or bleeding, and they are then seen under the microscope to consist of large masses of epithelium undergoing fatty changes. They have not been observed in other acute illnesses. In every case where they were seen the measles rash followed, so that whenever they were present the child was at once transferred to the measles ward. Koplik's spots appear on the first or second day of the disease, and increase in numbers up to the time of the skin eruption; they usually further remain for three or four days, so that they last from three to six days. They produce no discomfort. In some cases of measles followed by a stomatitis they were absent. No prognostic significance can be attached to them, as they were present both in mild and severe cases.

Advances in the Domain of Preventive Medicine.

At the forty-eighth annual meeting of the Illinois State Medical Society the President's address was read by Dr. Carter (Medical Record, June 11, 1898.)

The chief object of the address was to show that a responsibility existed in the field of preventive medicine, and that this responsibility rested upon the State. The speaker presented the following propositions as expressing his ideas of what was necessary: (1) The State or municipality should give men who could not secure other work some kind of employment which would afford them a living. (2) This might be done by introducing public improvements. (3.) A minimum rate of wages should be paid, so that only those who could not find work elsewhere would seek such employment. (4) All able-bodied men without work, who had no visible means of support and who did not apply for such government employment, should be subject to draft for this labor. (5) The unfortunate and disabled poor should be cared for as wards of the State. (6) The State should see that the poor were properly or comfortably domiciled in houses provided with good ventilation, supplied with good water, and sufficiently warm. (7) Inspection of the homes of all the people should be conducted regularly and thoroughly, the object being to see that they were in good sanitary condition. (8) All meats, vegetables, fruits, dairy products, milk, and manufactured foods, should be inspected as to their source, composition, and present condition. (9) Public baths should be established where the poor could have facilities for bathing free, or at a nominal cost.

Diagnosis of Pleurisy with Effusion, with Especial Reference to Misleading Physical Signs.

Dr. Herrick, of Chicago, discussed this subject at the Illinois State Medical Society. (Medical Record, June 11, 1898.)

He first spoke of the importance of careful inquiry into the history of the case, and dwelt upon the fact that in some cases there might be an absence of pain and a cough, the clinical symptoms resembling those of a mild typhoid. In other cases the severity of the symptoms and the explosive onset would remind one of pneumonia. Among the signs that might mislead, he mentioned the occasional inspiratory recession of interspaces and the decubitus upon the sound side. He regarded vocal fremitus as of relatively inferior value, because of the many conditions that might cause it to be retained, even though there was a large amount of fluid. With small amounts of fluid a careful examination should be made in the posterior axillary line, just external to the angle of the scapula, for signs were often present here though absent elsewhere. Even with quite large effusions there was a triangular area of relative dulness above the line of flatness posteriorly. Here could frequently be heard quite pronounced bronchial breathing and well transmitted voice sounds. The crucial test was exploratory puncture, but negative results should not lead to the exclusion of pleurisy with effusion until circumscribed collections of fluid had been ruled out. Palpatory puncture, to use Rosenbach's expression, might be of great value in the diagnosis of underlying tumor, and might be the only means of determining the presence of the thick fibrous plates that sometimes lined the chest.

Physical Development of Women.

Dr. H. E. Garrison quotes with approval the saying of the late Dr. Frank Hamilton, "that calisthenics may be very genteel and romping very ungenteel, but one is the shadow, the other the substance, of healthful exercise. Girls can only obtain health as boys do, by running, tumbling, by all sorts of innocent vagrancy. If girls were turned loose to amuse themselves spontaneously, to run up-hill and roll down, there would be fewer headaches in adult life. Rolling gives exercise to various sets of muscles without overtaxing them in trying to support the trunk. Many girls with round shoulders and rickety spines, in the author's opinion would have been saved these deformities had they done more tumbling. The school curriculum should be made broad enough to include development of body as well as mind. The schoolhouses should be set away from other buildings and should have large surrounding playgrounds. The civic authorities must take cognisance of physical needs of girls and provide places, with every facility of reaching them, where basket-ball and other hard games can be engaged in. Every community should provide free bathing facilities within its borders, and women should be urged to make use of these unless they have private arrangements for plunge-baths. Let every physician assist in enforcing the law for shorter working hours for women, and there will be a brighter, healthier, happier set of women."

Chronic Gastritis.*

A report of a very severe case of gastritis was freely copied in medical journals during the year 1896, in which glycozone was successfully used.

At that time, J. W., aged 38, a blacksmith, came under my care. His illness began in 1894 with the usual symptoms of gastritis. In January, 1895, he had become so much worse that he placed himself in the hands of one of our best physicians, under whose care he continued until November of the same year, when I was consulted.

After hearing his history and the treatment given, I urged him to return to his physician, insisting that nothing more could be done. My protest was in vain.

Examination revealed an emaciated, thin and badly nourished body; his eye, skin and color, fair though pale; his temperature normal; the bowels inclined to constipation with occasional diarrhœa with whites, pasty offensive stools; the lungs, heart and kidneys healthy; the liver a trifle small.

There was no painful point and no evidence of enlargement, tumor or ulcer. He was so thin that the abdomen could be most thoroughly examined. His tongue was heavily furred, red at the tip, indented at the edges, and the papillæ red and prominent.

He complained of being unable to take either solid or liquid food even in small quantities without causing heaviness, weight, oppression, pyrosis, eructation of gases, nausea snd finally headache and vomiting.

Since 1894 these symptoms had increased in severity, the nausea never ceased and this whole array of complaints would gradually accumulate in force and energy, overwhelming his system with an attack of headache and intermittent vomiting, that would last from three to five days.

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*Dr. L. A. Kengla in N. E. M. Monthly.

In 1895, these storms growing worse, rendered his life almost unbearable. I had been attending him about a week, when one of these attacks occurred. He had been vomiting one day before I saw him. The scene was truly pitiable. I found my poor emaciated patient in a small darkened room scarcely able to raise his head, gagging and straining constantly, bringing up finally by the greatest efforts, a tablespoonful of white glary mucous; his head bound tightly or wrapped in ice cloths; his eyes congested; his cheeks hollow; his skin sallow and pale; his face bespeaking the intense agony he suffered, begging and pleading to those around him for relief from the horrible nausea and retching.

I remained with him an hour and during that time he was not free for five minutes from efforts at vomiting. His sleepless, aching brain seemed racked to distraction. He would gag, vomit, and fall back exhausted.

This continued three days, gradually lessening. Sleep came only through exhaustion. Every particle of food (liquid or solid) was promptly vomited. During these attacks, the temperature was increased from 99 to 103.

These attacks were always of a similar character and from November 1, 1895 to July 3, 1896, they occured every ten days or two weeks.

The physician who treated him had used drugs, diets, and lavage faithfully and persistently, so that at the outset, I was completely handicapped.

I began with remedies which had given relief in similar cases, and in turn used acids, alkalies, alteratives, pepsin, digestants, purgatives, tonics, bitters, sedatives, diets, etc., either singly or in combination, until I had exhausted all the resources at my command.

The only perceptible relief came from the use of small doses of diluted hydrochloric acid between the attacks and a solution of cocaine and morphine during the paroxysm.

About July 3, 1896, I read the article referred to above, and in desperation and despair of ever relieving him, I ordered glycozone one-half, then one drachm, well diluted, twenty minutes before meal time.

In a few days he said he felt better; within a week he repeated the assertion. To the utter astonishment of myself and his friends, one, two, four and even six weeks passed, without a recurrence of his severe symptoms.

About August 20th, he was so much improved, that to hurry matters, I concluded to try lavage again. This was done at 5 P. M. and at 10 that night he was in the throes of an attack, which lasted two days.

He then resumed his glycozone and continued to improve till October 15th, when on account of inactivity of the bowels and costiveness, he was given two grains of calomel, which brought on a slight headache and considerable nausea.

He had already been taking more food, but from this time, it was increased in quantity and character, eating three fairly good meals a day, and enjoying them.

After beginning the use of glycozone, the acid was continued a few weeks, after meals, then left off entirely. No other medicine was used, except occasionally a pill of aloin, belladonna, strychnia, cascara, when bowels were sluggish.

To him glycozone proved the greatest boon, and to me, the relief given was simply wonderful.

It is useless to add, that I have used the remedy in many cases since, and have met with excellent and astonishing results.

Pollution of Soil and Water.

Dr. Fulton, (Maryland Medical Journal) relates the case of a man who buried a barrel of petroleum, and in a short time most of his neighbors had to stop using their wells. Wells 900 feet away were affected; yet all these neighbors had privies, stables, etc.

Yet the soil does a great work of purifying. The bacteria of the soil are as a rule confined to a zone a meter or a meter and a half deep, and these organisms are mortal enemies to disease bacteria. Only a few harmful organisms, mainly those bearing spores, are able to withstand sunshine and desiccation. The ordinary bacteria of water are hostile to disease germs. But the breeze drops some living ones into good soil. The sun warms myriads into growth and releases others from the clutch of frost. The rain sends some into our wells.

Up to a high dilution, water increases the danger of soil contamination. For that reason most pits are worse than surface closets. Cemented pits are not offensive, but many are built of loose stone, and as they seldom fill, are said to be self-cleansing. A far worse practise is that of converting unused wells into cesspools, thus polluting the water currents. The most primitive practise is more sanitary than this system, and its prolonged toleration is deplorable.

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J. H. KELLOGG, M. D., Supt., Battle Creek, Mich.

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Saprophytic Pneumococci.

The results of certain researches as to the frequency with which pneumococci are to be found on the surface of the tonsil have recently been reported to the Medical Society of the Hospitals in Paris, and they show that these cocci are of far more constant occurrence than has usually been imagined. (The Hospital, May 7, '98.) It had previously been stated that they could be found in about one-fifth of the healthy throats examined, but these researches indicated that the pneumococcus may be present in a far larger proportion of cases, having, in fact, been constantly found existing as a saprophyte, in the same way as the streptococcus, in the forty healthy persons who were examined. The importance of the *role* played by the pneumococcus in the production of disease is thus greatly lessoned. Pneumonia, no doubt, is an infective disease, but it appears that it is set up, not by exposure to an infection, but by exposure to those conditions which enable the infection (which, indeed, a man may carry about with him all the time) to take root, and permit the cocci to develop in parts where they can do harm. When a man gets "wet through," or "chilled to the bone," that is quite as important a factor in the production of the consequent pneumonia as is the pneumococcus, essential as the latter may be.

A Liberal Education.

Mr. Huxley says:—"That man has a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with will and pleasure all the work that, as a mechanism, it is capable of; whose intellect is clear, cold, logic engine, with all its parts of equal strength, and in smooth working order, ready, like the steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with the knowledge of the great and fundamental truths of Nature and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to a halt by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of Nature or art, to hate all vileness, and to respect others as himself. Such a one, and no other, has has a liberal education."

Methods of Educating the Young.

The methods of educating the young have steadily improved for years, yet it seems to me that in some respects, or rather some matters, educators have not kept up with the times. Children eight and nine years old can tell the condition of the stomach due to the use of alcohol, and this might lead us to believe that we are a nation of drinkers. While it may be a good thing to teach the young the evil effects of alcohol when used to excess, there are other things of greater importance to the individual. One of the most common ailments is constipation, and on this common but very important subject volumes have been written. Cases are met with in practice where all the instructions of the physician are carried out to the letter and the case will not yield. I have thought that the possible failure of treatment was due to causes that may be traced to early school life. In some of our public schools to-day, I am told, when the child desires to retire, the hand must be raised and when the eye of the teacher is caught the pupil says, "Please, may I go out?" The teacher says, "If it is necessary." If the perhaps diffident pupil has summed up enough courage to go out, he may be subjected to the teasing remarks of some of the scholars. Most children prefer to wait rather than to go through this ordeal and nature's demands are put off until recess or after school. Thus the foundation of chronic constipation is laid. Instead of teaching the bad effects of alcohol to young children inculcate good habits, especially those pertaining to the bodily functions. Another very important thing is the care of the teeth, but this is treading on the ground of the dental surgeon. J. W. F.

Syphilis.

When a patient presents himself for treatment, he should be placed upon the following receipe (which fully meets all indications) until the symptoms disappear, his appetite is improved, and a general feeling of vigor and activity exists:

℞ Hydrarg. Bi-chlor., 2 grains.
Iodia, - - 6 ounces.
M. Sig.—One teaspoonful after each meal.

Iodia is prepared by Battle & Co., St. Louis, and contains extracts from the green roots of stillingia, helonia, saxifraga and menispermum. Each fluid drachm also contains five grains iod. potass. and three grains phosphate of iron. The tendency of the profession is too much towards discarding everything but mercury. I have often seen mercury alone, or combined with iod. potass. fail to heal secondary ulcerations, which speedily disappear when combined with vegetable alteratives. It is, therefore, best to have the good effects of the only three reliable remedies at once, viz., mercury, iodide and vegetable alteratives (which is obtained in the above prescription.) Lectures on Venereal Diseases by W. F. Glenn, M. D., Clinical Professor of Genito-Urinary and Venereal Diseases, Medical Department Vanderbilt University.—*Southern Practitioner.*

Prevention of Uterine Disease.

Gonorrhoeal infection is now generally considered as one of the most important causes in the development of diseases of the female genital organs. The starting point is usually a gonorrheal process in the vagina, which extending upward into the uterus and tubes, give rise to endometritis, salpingitis, ovarian disease and peritonitis, and other serious lesions of the generative organs. For this reason the treatment of the primary vaginitis in as thorough manner as possible becomes of paramount importance. According to many practitioners, copious irrigation of the vagina with hot water and the use of Micajah's Medicated Uterine Wafers is the most efficient, agreeable and convenient method of accomplishing this. These wafers are not only strongly antiseptic, destroying the gonococcus, but astringent and alterative, subduing inflammation and promoting a rapid return to a healthy state. Write Micajah & Co. for samples.—Editor.

The Rational Treatment of Pulmonary Phthisis.

J. Hobart Egbert, A. M., M. D., Ph.D., says:

Among the various therapeutic measures recommended for the general treatment of consumption, Cod-liver Oil heads the list, for, as Dr. F. T. Roberts has justly said, "almost universal experience has testified to its good effect in this disease." Cod-liver Oil not only exerts a direct beneficial action upon the lungs, but is essentially a reconstructive tonic and nutriment. In its administration it is often wisely combined with hypophosphites, which seem to augment its curative value. Its nauseating tendencies must usually be overcome in order to insure its good effect, and hence the necessity of due care in the selection of an eligible preparation when prescribing Cod-liver Oil. The preparation known as Hagee's Compound Cordial of Cod-liver Oil is a most admirable and available preparation.

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Amylolytic Ferments.

In an article on this important subject Wyatt Wingrave, M. R. C. S. Eng. (Assistant Surgeon to the Central London Throat and Ear Hospital,) in the London Lancet, May 7, 1898, we are informed of a personal necessity that arose in the writer's experience for a reliable starch digestant. A crucial comparative examination was therefore made of many malt extracts and of Taka-Diastase, the tests being conducted both chemically and clinically.

He summarizes briefly: 1. That Taka-Diastase is the mast powerful of the starch or diastatic ferments and the most reliable since it is more rapid in its action—*i e.*, "it will convert a larger amount (of strach) in a given time than will any other amylolytic ferment." 2. That Taka-Diastase seems to be less retarded in its digestive action by the presence of the organic acids (butyric, lactic, acetic,) and also by tea, coffee and alcohol, than are saliva and the malt extracts. This is an important point in pyrosis. 3. That all mineral acids, hydrochloric, etc., quickly stop and permantly destroy all diastatic action if allowed sufficient time and if present in sufficent quantities. 4. That Taka-Diastase and malt diastase have, like ptyalin, no action upon cellulose(uncooked starch.) All starch food should therefore be cooked to permit of the starch frement assisting Natufe in this function.

The Treatment of Locomotor Ataxia.

At the National Hospital for the Paralyzed and Epileptic, Queen Square, on May 16th, Dr. Frenkel of Heiden, in Switzerland, demonstrated a new method of treating locomotor ataxia by systematized exercises. (British Medical Journal.

The basis of his plan is the well known fact that in locomotor ataxia the muscular tonicity, or that elasticity in virtue of which a muscle at rest is not completely relaxed, is greatly reduced. He showed that in tabetic patients the limbs could be passively moved into positions commonly supposed to be peculiar to acrobats, and without either pain or any appreciable overstretching of the antagonist muscles. For example, in a recumbent tabetic patient the fully-extended lower limb was easily and painlessly brought to an acute angle with the trunk, a movment that caused in a healthy control person not only pain, but also excessive tightening of the muscles of the back of the thigh and bending of the knee. The classical physiological experiment of "the headless frog" appears to throw some light on these phenomena, demonstrating as it does the intimate connection between the sensory nerves and the muscles, for on stimulating the skin of the decapitated animal with blotting paper dipped in vinegar, quasi-purposive movements result. The converse of this—that division of the sensory nerve roots produces not only loss of muscle tone but also actual paralysis—has been proved by Claude Bernard, Sherrington, Mott, Contejean, and others. The new method of treatment consists essentially in developing by carefully devised movements those muscles whose tone is lowered. Causing a recumbent patient to bring his heel, by short excursions, toward the trunk, moving it about two inches at a time, and then as slowly moving it back, may be mentioned as an example of many different movements. For the hands similar but more delicate exercises are employed. Dr. Frenkel claims that in this way the jerky movement of the ataxic is transformed into the approximately even movement of a healthy person; and he appears to think that it is due to an effect not so much on the muscles which normally produce the movement in question, as on those which antagonize or steady them. Whether this method will become established as a therapeutic measure remains to be seen, but it appears at least to have in it some elements of promise.

Holocaine versus Cocaine.

I have found Holocaine Hydromuriate exceedingly satisfactory as a local anæsthetic, and superior to Cocaine Hydromuriate, from the fact that it does not produce hydriasis, nor blanching of the mucous membranes of eyeball and lids.

A definite amount of a 1 per cent. solution instilled one drop at intervals of a minute until three drops are used, will produce perfect anæsthesia of the cornea lasting ten or fifteen minutes. Really equal to a 4 per cent. solution of cocaine.

The advantages then are, that even after we have perfect anæsthesia the tissues are still normal in appearance, the pupil undilated, and a definite quantity of the anæsthetic produces anesthesia in a definite time.

The anæsthetic effect of Holocaine upon mucous membrane surfaces does not seem to be as profound as that of Cocaine and therefore I deem cocaine the better agent in operations where the mucous membrane is largely involved.

W. H, Baker, M. D., Lynchburg, Va.

A woman at No-Name Pond, Me., the Boston Herald says, has recently given birth to her twenty-fifth son.

Practical Evidence.

I used your sample of Resinol on myself for Pruritus Ani, which has been my curse for several years, defying all applications. The first application proved efficacious, and I am now using and prescribing Resinol for the above and several other itching troubles. In fact, I think it is the best remedy I have ever used for the diseases for which it is recommended.

H. B. LEIGHTON, M.D., Boston, Mass.

I have used your Resinol in Inflammatory Rheumatism with happy results. Hope others will try it. I know they will be pleased.

E. J. BURNSIDE, M. D., Phila., Pa.

It gives me pleasure to say that Resinol is the best application for local treatment of Eczema I have ever used. I can also bear testimony to its efficacy in Erysipelas, and its soothing and healing virtues in all inflamed surfaces.

A. S. FRENCH. M.D., Lawrence, Mass.

It is but just that I should attest my satisfaction with the use of Resinol. It is a marvel of efficacy in Pruritus Ani. In relief of soreness, due to scalding from acute Nasal Coryza, it acts like a charm.

J. H. THOMPSON, M.D., Goshen, N.Y.

Resinol is by far the best application I have ever used in a practice of 48 years for the diseases recommended. A case of Eczema commencing on the scalp and extending over the entire face and which had been under the treatment of various physicians with no apparent benefit, was completely cured by it in less than two weeks.

J, J. WORTHY, M.D., Lavalle, Wis.

I am very much pleased with the effects resulting from the use of Ung't Resinol in cases of Itching Piles, Pruritus Ani, and Vulvae, Eczema, Erysipelas, &c. In fact it is the remedy "par excellence" in all cases where there is a Congested or Hyperaemic condition of the capillary Blood Vessels. C. D. SMITH, M.D., Atlanta, Ga.

I frequently prescribe Resinol, and am well pleased with its work. It has proved very useful in many forms of eruption of the skin, and especially so in Pruritus Vulvæ or Ani, and in Eczema of other parts of the body.

LUCY HALL RROWN, M.D., Brooklyn, N. Y.

I take pleasure in stating that I have found Unguentum Resinol almost a specific for Pruritus Ani, Itching Piles and Marginal Eczema.

HENRY HUG, M.D., Detroit, Mich.

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The Repression of Tuberculosis.

According to the special correspondent of the British Medical Journal the prophylaxis of tuberculosis is as absorbing a subject to the Paris Academy of Medicine as that of depopulation. A late member of the Academy, Prof. Verneuil, founded the Congress for combatting tuberculosis. Prof. Grancher is one of the Commission, which included MM. Roussel, Bergeron, Besnier, Brouardel, Colin, Magnan, Monod, Motet, Napias, Nocard, Proust, Roux and Vallin. Prof. Grancher has drawn up the report of the results of the work done by the Commission. The following is a summary of its conclusions: Pocket spittoons, containing 5 per cent. colored carbolic solution, are to be used. Washing with wet dusters should replace sweeping. Milk should be boiled no matter where it is obtained. In private cases, as soon as tuberculosis declares itself, the physician is urged to enforce the observance of every prophylactic measure; he should also try to make an early diagnosis of tuberculosis, and arrest its development by prophylactic means. Soldiers are to be sent on sick leave before Koch's bacillus is detected in the sputa. When it is detected the patients are to be discharged from military service and restored to their families. Schoolmasters, factory owners, the heads of commercial establishments, are called upon to carry out rigorously the directions formulated in the report. In hospitals tuberculous patients are to be treated in isolated pavilions; the wards are to be kept in an antiseptic condition, sweeping is to be discontinued, and the floors cleaned. The nurses are to be better paid, recruited from a better class, and to be entitled to a retiring pension. A special sanitary nursing body is to be organized. The Academy approves of the laws already proposed concerning tuberculous meat. The total destruction of tuberculous animals should be practiced only in those rare cases where tuberculosis is generalized. Farmers are recommended to use tuberculin for the early diagnosis of the first stage or latent tuberculosis, and to kill at once for butcher's meat animals which are attacked but not dangerous as food. The Academy has appointed a permanent commission entitled "Commission de Prophylaxie de la Tuberculose."

Growth in Spondylitics.*

A striking result of Pott's Disease is its dwarfing effect. Growth in height is diminished by loss of substance, deformity and malnutrition. The degree of retardation will depend in a given individual on the age of invasion, the location, amount, severity and duration of the disease, and the hygienic and surgical management of the case. The ultimate result is usually a height (and weight) considerably below normal.

In early cases of average severity and duration growth is much retarded up to the fourteenth year; from an inch and a quarter to an inch and a half being rate, instead of the normal two inches and upward. A growth of one and a half to two inches maintained for a considerable time indicates that the case is doing remarkably well; very slow or absent growth in stature indicates that the child is not doing well. Puberty and general physical development are also retarded, and if the disease has ceased to be active there may be a late acceleration of growth from the 16th to the 18th year, and considerable gains may occur after the age of 20.

As the rate of increase in stature and weight affords valuable information in regard to the condition and progress, and practical aid in the treatment of these cases, it is suggested that measurements of the standing and sitting heights (and weight) of spondylitics be recorded from two to four times yearly. Such measurements, covering a series of years, would be particularly useful in enabling us to judge of new methods of treatment, as for example the method of forcible reduction.

Antipyrine.

Dear Sir:—We beg to inform the trade that we have to-day reduced the price for Dr. Knorr's Antipyrine, made by the Farbwerke, vorm. Meister, Lucius and Bruning, Hoechst-on-Main, Germany, as per schedule given below.

Those who have bought Antipyrine from us on or since April 10th last, are requested to report at once the quantity still in stock *out of such purchases*, so that we may credit their account for the difference between the old and new price.

Calling attention finally to the changed conditions relating to the combination orders, as given on the next page, we remain,

Yours truly,

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*Abstract of a paper read at the meeting of the American Orthopedic Association, Boston, May 19, 1898, by Henry Ling Taylor.

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The Cautery in the Removal of the Appendix.

Dr. A. J. C. Skene, in the New York Medical Journal, discusses this subject. He says:

"For the first time in the history of appendicectomy the method of operating with the electric hemostatic forceps was used. This departure from the current methods of ligature, suture, cauterization, invagination and others, is the logical outcome of the success of Dr. Skene's practise when operating upon the pelvic viscera. All the other steps of the operation were such as are advised by surgeons generally. The incision was the ordinary one over McBurney's point, two inches in length. On inspection, both the appendix and the meso-appendix were found to be much enlarged and thickened, and superficially traversed by numerous dilated blood vessels. There were no adhesions. The first grasp of the forceps was upon the meso-appendix close to its mesenteric attachment. A current which heated the forceps to 180 deg's,. F. was then induced for half a minute. Upon the removal of the forceps the tissues were found to be not charred but dried, having the appearance of white horny matter. Scissors were used to bisect this desiccated area. A second seizure was made upon the appendix itself close to the caput coli, and the same current continued for ninety seconds. The forceps was then removed and the tissue divided in the line of the desiccated area away from the caput. The same result was manifested. No charred tissue, no bleeding, and, more important than all, no escape of the contents of the appendix. The tissues had been simply dried out. Just at this point a rather violent attack of retching came upon the patient, which continued for nearly a minute, yet without inducing any change whatever in the stump. All the severe pressure and strain had not forced even a speck of blood or serum into the compressed area. The abdominal cavity was left perfectly free from any foreign matter whatever. Sutures and dressing as usual. Time of operation, fifteen minutes."

Sanmetto in Cystitis, Prostatitis and Irritable Bladder.

I have been using Sanmetto in my practice for two or three years. I have used it in a good many cases of cystitis, prostatitis and in all cases of irritable bladder, with the most gratifying results.

R. T. Hooker, M. D.,
Ex-Pres'd't So'west'n. Ky. Med. Assoc.
Arlington, Ky.

Anti-Phymin.

The annual reports of our Medical Associations, both State and National, usually record some paper read by men of more or less prominence in the profession claiming to have found a certain and sure cure for Consumption. These reports are usually based on results supposed to be obtained on some four or five selected subjects, and the author of the theory is usually interviewed by some reporter for the daily press, succeeds in getting his name and photo before the public, and then sinks into innoccuous desuetude, his ambition apparently satisfied.

Pathologists have long claimed that tuberculosis ought to be the most curable of diseases, but the solution of the problem must be reached through the digestive functions, for from no other source can each blood corpuscle get its pro rata of essential vital force necessary to repair tissue. We find that of all the various remedies advocated from time to time, none have stood the test, or made the record that Anti-phymin has done. This remedy has not been heralded through the columns of the daily press, nor does it claim to be a specific, but each and every physician who has given it one month's trial in tuberculosis is well satisfied that it is the most rational, common sense, and most successful treatment yet discovered for the cure of the dread disease.

The Central Committee of the Berlin sick clubs, recognising the advantages of early diagnosis in cases of phthisis, have petitioned the Prussian Cultus Ministry to allow sputum examinations to be made for the sick clubs by the bacteriological institutes of the Berlin University. The Ministry has granted the request, and has ordered the institute for infectious diseases (the Koch Institute) to undertake the examinations. Arrangements are to be made for regulating the transmission of the sputum to the institute, and of the diagnosis from the institute to the doctor in attendance with the greatest expedition possible.

From all parts of Germany come accounts of projected tuberculosis sanatoria, showing the quickened interest of the population in this important question. Thus meetings are being held in Essen and neighboring towns of the Rhine district for the purpose of raising funds for a large sanatorium for lung diseases; and near Erfurt a similar sanatorium is to be erected by the "Johannitter" Knights from funds left to the order by the will of the late Baron v. Seebach.

Aseptolin-Edson in Cancer.

Dr. F. H. Elder, Philadelphia, Pa, : "For thirty days I have had two patients under treatment by injections of Aseptolin, obtained from my friend, Dr. A. E. Roussel, of this city. They are both responding very satisfactorily to the treatment. I am now using the solution in a case of scirrhus cancer of the breast. of fourteen month's standing. This patient was about completing arrangments for the removal of the breast at the University Hospital, but weakened at the last moment and came to me to see if I could do anything to relieve her without an operation. I told her of your discovery and what it was doing for other septic conditions, and if she was willing to give it a fair trial I was willing to undertake the treatment, with the understanding that if after two weeks the tumor continued to break down we would resort to surgical means.

Much to my surprise and gratification, at this time, the middle of the third week, I find the tumor mass has reduced fully one-third, The sharp lancinating pains have disappeared. The ulcerated part, an inch in diameter, is dry and healing over. She is delighted, and anxious to give me all the time necessary. I have been giving fifty minims daily injected around the periphery of the mass with the above results. * * * For further statement in relation to above case I continued to inject daily with 100 minims of Aseptolin around periphery of tumor, continuing this for three (3) weeks after my note to you. At the end of that time, six weeks in all, the tumor mass had reduced steadily until it presented a softened elastic mass of the size of a walnut, about an inch in diameter. The ulcerating surface was healed firmly and dry. The pains had disappeared, and the condition of the cancer mass was so favorable in appearance that at her solicitation I consented to let her rest for a week. That was nearly three weeks ago, and I have not seen her since. I presume she is still in good condition, or I would have heard from her before this. I am sorry not to be able to report her condition to date, but will let you know the result when she reports again. The case was an interesting one to me. The patient and tumor both took kindly to the treatment, and no inconvenience was suffered at any time from the injection. I carefully avoided injuring the cancer mass at all times, although the patient persistently urged me to inject directly into the tumor; she thought it ought to get well quicker if this were done. * * *

There was a marked contraction of the skin and cicatrix at the seat of the original ulcerated point, with a fistula at the bottom 1½ inches deep, which discharged a thin, acrid and slightly offensive pus. I began the injections of Aseptolin (100 minims) and have repeated them as often as I could get her to come to me. She is a charity case and proud.) Since her return I have injected the periphery of the mass twenty times in all—an average of one injection every four days. To-day I gave her a final injection and discharged her, as I believe, cured. The fistula has healed from the bottom by granulation. The tumor mass has disappeared. There remains a small mass of plastic tissue at the bottom of the depression about a half inch in diameter. The breast gland is free from other obstruction. The patient is in excellent health and spirits, and believes herself cured, which belief would seem to be justified by the circumstances. The only other medicine this patient has taken since her return has been twenty minims of Fowler's solution of arsenic daily. I have suggested that she continue the arsenic for a time, and report to me if any new symptoms arise. It has been a most interesting case from start to finish.

I believe that the final result could have been attained in three months if patient could have been injected daily."

Dr. J. Morton Howell, Dayton, Ohio; "I feel that I owe it to you to report the progress of my case of carcinoma of the breast, especially when the progress has been and is decidedly in our favor.

I think in a former letter I described the size of the growth and gave you its involvements. If not, I may add that the neoplasm involved the upper two-thirds of the breast, and the axillary, as well as the supra-clavicular glands. The breast affected (left) was little less than one-third the size of the right and was exceedingly sensitive and painful. The left arm, at times, she was unable to raise to her head. The tumor was uniformly hard. I gave her the first injection of Aseptolin on the 13th of July and gave, in all, twelve injections during said month. I used the abdomen for the seat of injections, commencing with sixty minims and increasing ten minims at each injection until 200 minims were reached. This was continued every day, or every other day, until the 12th day of August, at which time she was prevented from taking her treatment owing to the severe illness of her husband. * * *

The result of this has been—reduction of size of tumor, almost if not fully one-third, absence of soreness and pain (except as indicated, from injection) and a great general improvement.

She is now enabled to lie upon her left side—a position which she has not enjoyed for months, owing to the pain occasioned by so doing. Aside from the Aseptolin, I have been giving her medicine via stomach, and local remedies, hoping that I might get benefit from the latter by endosmosis. If, (as I now believe I shall be) successful, it will be very largely if not wholly due to Aseptolin."

A Bivalve Plastic Splint for Pott's Disease.*

The advantages and disadvantages of the treatment by plastic splints are pointed out, and modifications are suggested by which the latter may be minimized.

It is maintained that the plaster jacket is a leverage apparatus, acting essentially like an antero-posterior steel support, and it is urged that similar principles be followed in its construction and application.

The ordinary jacket made long in front and solid at the edges, is provided with strips of felting, either side of the spinous processes behind, and across the inside of the front at the top and bottom.

While still fresh, the jacket is cut in the axillary line by two straight incisions into an anterior and posterior half, whose breadth is somewhat diminished by paring away the sides. The bivalve splint is then trimmed and provided with at least four straps and buckles on each side, or one side may be fastened by a leather hinge. The head rest, when needed, should consist of a chin-piece supported by one or two bent steel bars incorporated in the anterior part of the splint.

Advantages claimed are cleanliness, avoidance of excoriations, adjustability and precision.

Finally, the terms "jacket" and "head-spring" are criticised as inaccurate and misleading, the terms "splint" or "brace" and head-support" being preferred.

A Sheet Anchor.

On September 10th, 1897, a well known New York physician of the Third Avenue Cable Railroad Company, returned to the New York office of the Norwich Pharmacal Co., ninety-four one-pound empty Unguentine jars. In a letter accompanying the jars the doctor says: The jars I return to you to-day represent the number of pounds of Unguentine I have used since December 1st last. I have from twelve to fifteen cases a day, motormen, conductors, and stablemen suffering from slight wounds, abrasions, cuts, bruises and burns, and about the only treatment I make is to give them a small box of Unguentine. It is certainly my sheet anchor in practice, as in every instance it heals all the above cases quicker than anything I have ever used."

Delayed Resolution in Pneumonia and its Treatment.

Dr. Streugel (Therapeutic Gazette) says that, pathologically speaking, resolution may fail on account of untoward changes in the diseased area, or because of mere delay in the ordinary processes. In the former instances the disease may terminate in abscess or necrosis of the lung, or in interstitial pneumonia. In the latter instances, after a more or less tedious course complete resolution finally takes place. Delay in the resolution occurs more frequently in irregular pneumonic conditions, such as complicate infectious diseases and Bright's disease. The author states his conviction that no form of medicinal treatment is particularly useful. Counter-irritation has, however, been of apparent benefit in every case where it has been tried, and generally in proportion to the severity of the counter-irritant. Strong mustard poultices have sometimes been useful, but blisters were always more efficacious. Next to counter-irritation, systematic breathing exercises seem to be most useful.

The conclusions as to treatment are thus stated:

1. In cases of slight tendency to delay of resolution, manifested by moderate dulness and persistent broncho-vesicular breathing, systematic breathing exercises are of the greatest importance.
2. When considerable dulness persists, active counter-irritation should be practiced, and tonics and stimulants administered.
3. The production of aseptic abscesses may be useful.

Sanmetto in Hypertrophy of the Prostate; also in Cystitis.

I have used Sanmetto myself for hypertrophy of the prostate, from which I have suffered for fifteen years. My age is eighty three years. I have found out the value of Sanmetto, and am persuaded that this remedy will cure me entirely. I prescribed it for two of my patients who suffered with cystitis, one forty years of age was perfectly cured from the use of two bottles. The other, sixty years of age, thinks he will never stop it. I think so much of sanmetto that I, for the first time in my life, feel induced to recommend the same to any physician.

ISAAC SAALFELDT, M. D.
Chicago, Ill.

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*Abstract of a paper read at meeting of the American Orthopedic Association, Boston, May 18, 1898, by Henry Ling Taylor.

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Differential Diagnosis of Ethical Relations.

Ethics are a rule of action, hence Medical ethics, would be those governing the practice of medicine, and it is to this department that we desire directing your attention for a few moments. A few queries will indicate to you the scope we desire to embrace, viz.

1. What importance can we attach to the written form of Medical Ethics?

2. Are we growing towards or from a closer observance of them year by year?

3. How can we insist on their observance?

4. Are we doing all that can be in this direction?

Of course my statements on these topics will necessarily be brief, owing to limited space at my disposal.

That all societies whether medical or otherwise require for their highest attainment and proficiency a form (written) to govern them is obvious. This form is assumed to be the product of the deliberate action and consideration of a majority of the members in attendance of such organization, having justice to all in view. In the fromation of such an embodiment of rules, prejudice, personalities, selfishness and all elements which do not conduce to the benefit of the body as a unit should be considered pernicious and of course be eliminated and discountenanced.

This collective asperation and ambition should be the keystone in the arch; the lifting of the profession as a whole, and the non recognition of that of factions or parts should ever be the direction of growth and development.

It is difficult and well nigh impossible to prevent the entrance at all times, into societies of the party or faction spirit. This hitherto has been a problem for solution, and today should engage most thoughtful consideration, at the hands of medical men. The importance therefore, and we may say the necessity of a standard of action, as to how the physician should deport himself, treat his patient, and his fellow workers, can scarcely be over estimated.

The second topic, are we going towards or from their closer observance?

This can be answered both yes and no, (that is we are going both ways in a measure). I am inclined to be optimistic in averaging up the moral phase of the medical profession. The decorum or, as we may put it, the principles underlying the proper government of medical behaviour, is to-day on a higher plane than it has been at any time before. And we may say that a larger share of professional medical men can claim more knowledge of ethics, and, I think, a closer adherence to them than at any previous period of the world's history. The infractions that have been made on this territory have been and are being done by the minority, as my observation would teach me. A few designing men can and do oftimes corrupt the social, ethical and literary feature of a whole city. Members of so noble a profession, belonging to this class by connivance and strategy, become members in full fellowship with the pure element, when it requires many times more power to advance moral interests, or even to maintain them, at a given standard, than they themselves exert to lower it. It is in accord with Biblical lore, when it is said that a little leaven leaveneth the whole. Every medical society, or association, every collection of medical men, every club formed of such, has within its pale a Judas Iscariot, and we do not have to seek far to find couched in false garb the despicable face of an Ananias. My admonition would be to watch the portals and prohibit the entrance of any man who so counterfeits right as to betray any of the grand principles which go to form the highest standard of medical possibilities.

The third proposition is partially answered in the last statement, viz.: How can we insist on a closer observance?

From the foregoing it is clearly seen that quackery has invaded the prescincts of all bodies and wherever found, of medical assembles. Among the stars and gems and the rubies of medicine and surgery, we can but hope to always find the ugly form, *now and then*, of the adversary to progress and to ethics. Keeping such out of communion is an easier task than expelling such after they have once entwined their pernicious nature around us, and thus become a part of our growth and development.

So let us hope in this direction not to entirely eradicate (for this may be beyond us) but to materially modify the ugly amalgamation.

The fourth and last query, are we doing all that can be to improve medical ethics?

I would most emphatically say no; and I shall have more and more hope in this direction as we become less and less inclined to compromise (for personal reasons or position) with wrong, with quackery, with injustice. A species of barter is indulged in by some whose reputations are good, *with quackery*. It is on the plan, give me so much and I will secretly, and as far as I can, lift you up on a plane of recognition and respectability.

C. B. Hardin, M. D.

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Symptoms Following Use of Champhorated Oil.

Dr. Francis S. Tidcombe, in the Lancet, states that a male child, aged one year and ten months, was given a teaspoonful of camphorated oil instead of "cough mixture." When the mistake was discovered (some two or three minutes afterwards) the nurse gave the child a teacupful of water with a teaspoonful of salt in it. The child did not vomit or show any symptoms until about twenty mintues latter. when he fell on the carpet "in a fit." The fit lasted "a few seconds," and the child remained unconscious. When I saw him he was quite unconscious, the extremities where cold, the breathing was deep and slow, there was hardly any pulse at the wrist, the eyes were half closed, and the pupils were widely dilated. I applied hot sponges over the heart and administered a weak current of electricity. He rapidly revived and was again sick. As soon as he could swallow I gave him a copious draught of warm milk-and-water, which speedily returned. Within half an hour he was able to walk. He was sick twice more after drinking milk, and was decidedly drowsy all day. The strength of the camphorated oil was about 1 in 4, so he must have taken about 15 grains of camphor.

Diphtheria Statistics.

M. Sevestre has very carefully drawn up the diphtheria statistics at the Hospital for Sick Children in Paris; they are as follows: Among 380 children attacked with diphtheria, angina, or croup, 102 died; the total mortality is thus at the rate of 17.40 per cent.; the correct mortality rate is 10.68. M. Sevestre classes diphtheria cases under two headings, "pure diphtheria" and "associated diphtheria." In the mass he has met with 99 cases of streptococcal diphtheria. In pure diphtheria the total mortality is 14.34 per cent., and the correct mortality is 8.24, but the mortality in streptococcal diphtheria is 32.32 per cent., and the corrected mortality 23.80. Dr. Sevestre treated his patients with antidiphtheria serum, and alsc washed out the throat with liqueur de Labarraque 50 per cent.; in very serious cases with chloral solution, 1 per 1,000.

Epilepsy.

Clinical experience of hundreds of physicians has proven that "Neurosine" (Dios) is almost a specific in Epilepsy. Dose, two teaspoonful 3 times a day, modified as the case warrants. Reliable results cannot be expected if substitution is allowed.

The Value of Laparotomy in the Treatment of Tubercular Peritonitis.

Monti in an elaborate article on the subject of tubercular peritonitis, read before the Twelfth International Medical Congress, at Moscow, comes to the following conclusions as to the therapeutic value of operative interference: (University Medical Magazine.)

1. It is possible to cure tubercular peritonitis with serious exudate, by medical treatment, without operative procedure, though much less frequently, and always more slowly than by laparotomy.

2. Although, in such cases as the above, good results are obtained, relapses and subsequent outbreaks in other parts of the body are not prevented from occurring.

3. When extensive adhesions of the intestines or coincident swelling of the mesenteric glands occurs, and only a slight amount of fluid exudate accompanies it, the results of operation are not satisfactory, and may lead to a fatal termination.

4. In cases with serious effusion and without extensive adhesion of the bowels, or swelling of the mesenteric glands, good results may be expected from operation. But in other conditions of tubercular peritonitis the experience up to the present time is too slight to justify a statement as to the value of operative treatment.

At the session of Academie des Sciences, held of Paris, December last, the Cuvier prize of 1,500 francs was awarded to Prof. O. C. Marsh, of Yale University. This prize is awarded every three years for the most remarkable work either on the animal kingdom or on geology.

Well Water.

The average house-owner certainly believes that the water which he pumps clear and cool from his well is pure and wholesome. He does not stop to think of the impurities with which it may have come in contact during its flow from the surface to the bottom of his well. This well may be sunk in the immediate vicinity of an overflowing cesspool or outhouse; the natural drainage of his own or his neighbor's barnyard or pigsty may be flowing over the soil, through which is filtering the water that is to fill the underground cistern; or its bottom may be in a porous stratum of soil or gravel that receives, at a point higher than the bottom, the drainage from some graveyard or other source of decaying organic matter; some neighboring tree may have thrust its rootlets through the wall of the well, and there they remain to decay; or the top not being tightly covered and strong, toads or other vermin may tumble in to aid in the pollution of the supply; but our well owner, not seeing, smelling, or tasting the results of these additions to the underground reservoir, is not conscious of their existence. If the flow of organic impurities through a natural filter bed be so great as to fill it with this precipitated organic matter, decomposition of the masses of organic filth thus carried into the soil takes place, and the soluble products of this decomposition flow on with the underground streams until a well offers a collecting place for them. Such a filth-saturated condition of the soil exists in every old and thickly settled community. The products of this decomposition are carried directly to the wells, and they thus become suitable breeding-places for bacteria.

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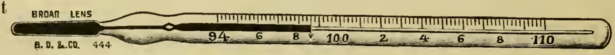

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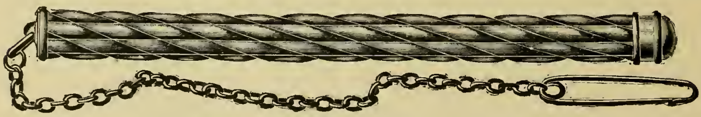

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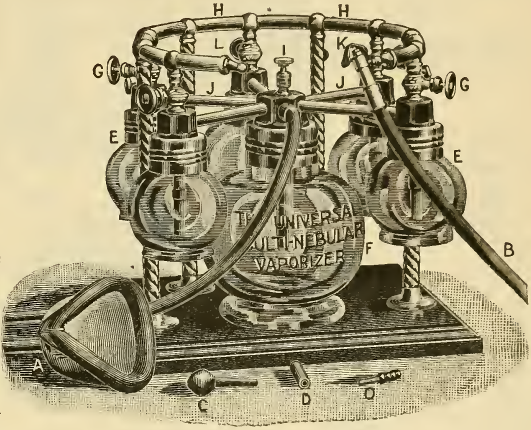

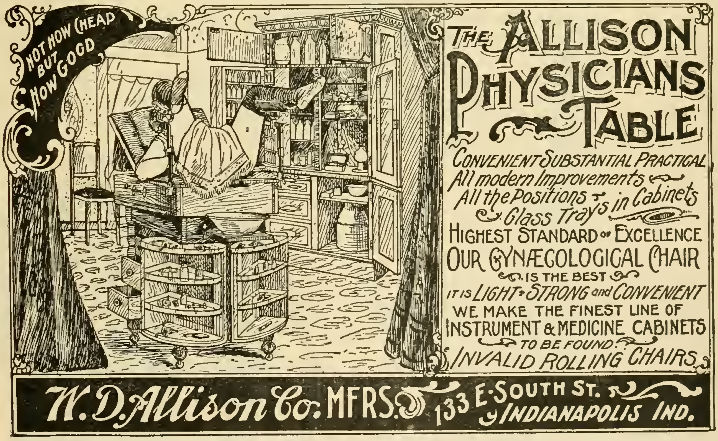
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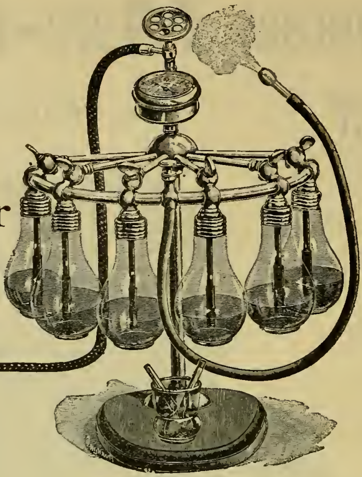

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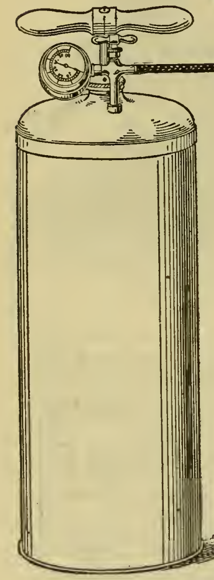

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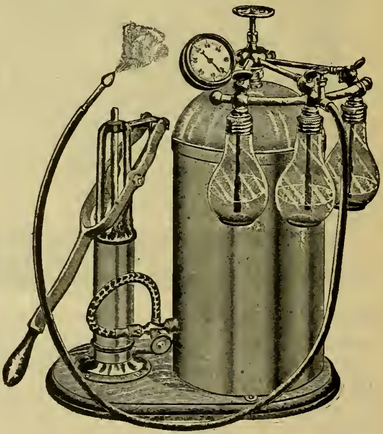

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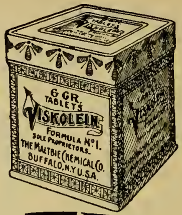
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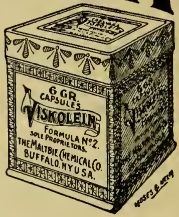
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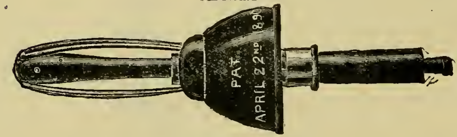

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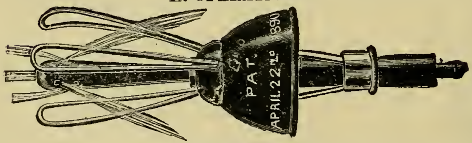

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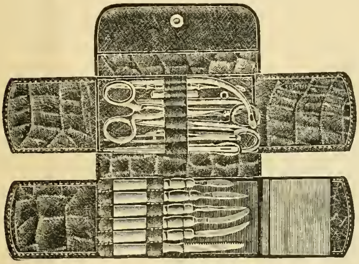

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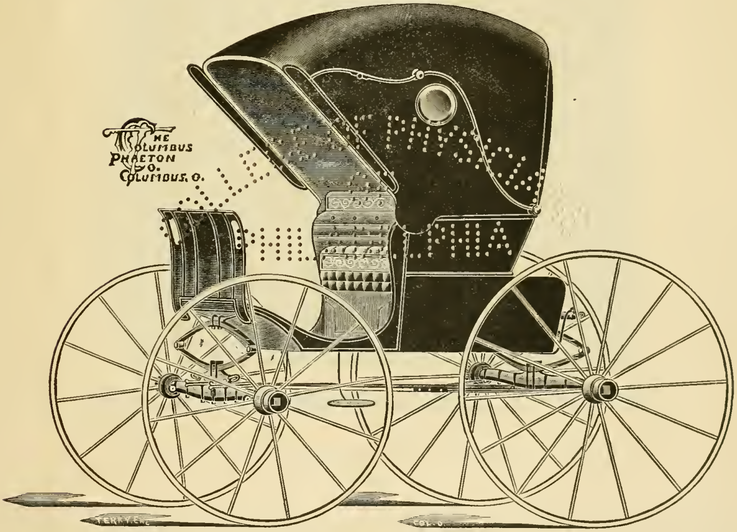
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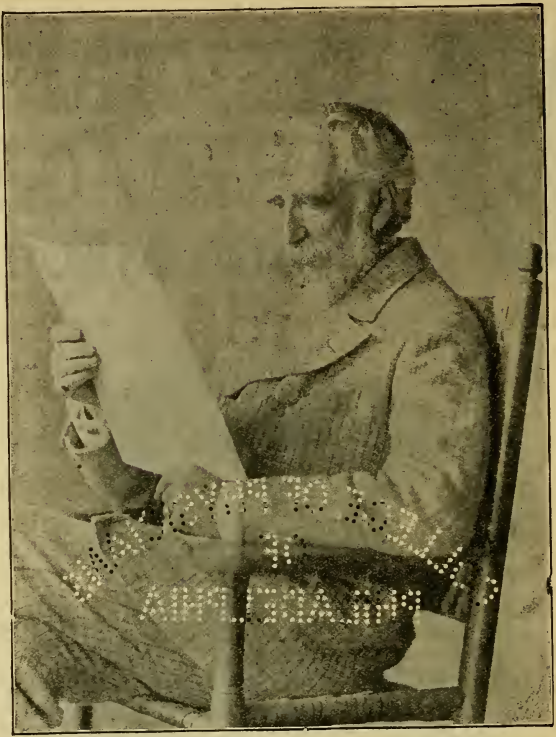

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